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DISCRETION, DISPARITY, AND THE PAROLE PROCESS

by

(C) DONALD J. DEMERS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

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ABSTRACT

In recent years, students of the justice process have become increasingly concerned with its distributive dimension, i.e., the extent to which decisions rendered by legal representatives approximate the ideal of equal treatment under law. This concern stems from the widespread belief that agents of the criminal justice system discriminate against certain social segments of the population.

To date, tests of the discrimination hypothesis have focused on police and judicial dispositions. Little systematic attention has been devoted to the exercise of discretion in the parole system. This omission is surprising given that parole decisions are largely invisible, seldom open to review, and, therefore, particularly susceptible to bias. This dissertation attempts to respond to this neglect. It seeks to empirically test the question: Does the discretionary power exercised by parole officials in Canada result in prejudicial decision-making?

After reviewing the major tenets of conflict theory, reviews of the relevant literature are presented. These studies reveal little support for the hypothesis of legal bias. Rather, they indicate that the factors which document the seriousness, length, and consistency of an offender's criminal career are better predictors of official disposition that the personal-biographical attributes commonly considered (age, sex, race, and social class). The

result of this discussion is the specification of general models of decision-making in the parole process.

Data were collected with reference to: a sample of parole applications and a separate sample of parole terminations in 1972. Path analysis was used to evaluate the discrimination hypothesis.

With a few important exceptions, the analysis does not support the hypothesis of prejudicial treatment by parole officers and board members. However, Natives are less likely to receive favourable officer recommendations and are more likely to be revoked than Whites.

The analysis clearly reveals the complexity of the parole process and the crucial role played by the parole officer therein. Moreover, it suggests that organizational constraints, e.g., in the selection phase, result in the delegation and routinization of discretionary power by board members. The delegation of power to officers creates a possible channel of extralegal influence whereas routinization can result in board member reliance on stereotypes and the neglect of important information items. Both practices can eventuate in discriminatory decision-making.

Finally, the analysis argues that a meaningful understanding of parole discretion requires an expanded perspective. To date, research has focused on the parolee as an isolated actor. In order to mirror the complexity of the parole process, future research should incorporate the personality attributes of parole officials and the organiza-

tional features of the system within which they work.

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CHAPTER I

DISCRETION AND THE CONFLICT PERSPECTIVE: AN EXAMINATION OF THE EMPIRICAL EVIDENCE

> "Where law ends, discretion begins, and the exercise may mean beneficence or tyranny, either justice or injustice, either reasonableness or arbitrariness."
>
> (Davis, 1969:3)

Recent years have witnessed a resurgence of interest in the sociology of law and legal institutions. In lieu of the traditional criminological concern with the etiology of criminal conduct, students of deviant behavior have increasingly concentrated their efforts on the issues central to the creation of criminal laws and their enforcement/administration. Where "justice" was once assumed, it is currently a matter of heated debate. Much of the controversy has focused on the exercise of discretion throughout the various sectors charged with the responsibility of criminal justice administration.

Discretion

The criminal justice system is composed of a number of organizations or subunits which, while relatively autonomous in an administrative sense, are interdependently linked in a network of exchanges. For example, the police control

the allocation of resources in the process of law enforcement and their decisions crucially affect the type of people and the nature of the information which form the input of the prosecutorial and judicial units. Reciprocally, the decisions rendered by these latter sectors can influence significantly the operational practices of the former.

The system is organized to arrive at decisions with reference to people and information that are legally defined as criminal matters in the body of criminal law (Reiss, 1974:679). Criminal matters necessitate decisions. The existence of alternative courses of action requires the exercise of choice. Consequently, discretionary potential exists whenever the "effective" limits of an individual's power allow him to choose among possible courses of action or inaction.[1]

The concept of "effective" limits indicates that the exercise of discretion is not necessarily constrained by the legal limits of an official's jurisdiction. Therefore, one can distinguish legal and illegal discretion or refer to authorized and unauthorized choices. Nor does the exercise of discretion require action. A decision to refrain from enforcing a particular statute is, in a very real sense, a discretionary one. Moreover, discretion is exercised at each step in the legal process and not merely with respect to ultimate dispositions. Finally, discretion is not restricted to substantive choices; it is also applicable to procedures, forms, timing, etc. (Davis, 1969:4).

Discretion and Justice. The legal system promulgates a model of law which maintains, as a fundamental premise, that decisions are formulated by the application of relevant legal and/or administrative rules. These decisions are termed objective because they are rule-governed. As a result, discretion is seen as an imperfection or, at best, a necessary evil (Wexler, 1975:121). Notwithstanding this conceptualization, the exercise of discretion is fundamentally related to the justice process. No legislature has succeeded in drafting a criminal code which unequivocally encompasses all conduct intended to be designated criminal and which clearly excludes all other conduct.[2] Furthermore, the infinite variety of individual circumstances frustrates the administration of law by the mechanical application of rules. Rules devoid of discretion cannot properly tailor decisions to the unique facts and circumstances surrounding particular cases. Consequently, discretion is an essential ingredient for individualized justice and can function as a creative tool in law.

Much concern, however, has been voiced with reference to its destructive potential, e.g., as it relates to the distributive dimension of justice.[3] "Equality of consideration" is central to the distributive property of justice. This principle does not demand that all men be treated identically, but rather that they be treated differently in some manner "relevant" to the distinction proposed.[4] Discretionary decisions based on "irrelevant" distinctions

contribute to injustice, e.g., if there exists a systematic pattern of such decision-making. In short, the task is one of eliminating unnecessary discretion while controlling that which is essential. Given these considerations, it can be maintained that the essence of criminal justice administration lies in the exercise of discretionary power.

Discretion and the Conflict Perspective

The controversy between conflict/coercion and integration/consensus constructions of social reality[5] has been rekindled in the criminological arena by the emergence during the past decade of a conflict formulation as an important conceptual model in the study of deviant behavior. The debate focuses on divergent conceptualizations of the relationships between law, power, and order. Whereas integration theorists view social order as the product of value-consensus; conflict proponents define it as the outcome of value-antagonism.

The conflict orientation posits a model of society composed of subgroups or social segments with competing definitions of social reality. Conflicts of interest are inevitable. Social interaction carries with it conflict potential in terms of the ascendancy of these interests. Consequently, social order is always tenuous and social change is ubiquitious. Order is:

> "a temporary resolution of conflicting notions about right and wrong and of incompatible desires, ... a pattern of conflicts and resolutions of conflicts that lead to new lines of struggle"
>
> (Turk, 1969:Xii).

Notwithstanding their diverse interpretations, conflict adherents agree that power (i.e., the ability of an individual or group to impose his/its wishes on another) is the basic characteristic which defines social organization. Power differentials emanate from, and reinforce, differentials in access to important economic and political resources. It is this discrepancy in the ability of various social groupings to exercise and augment power which ultimately determines the outcome of social conflicts. Conflict criminologists seek to delineate the reciprocal relationships between the structural inequalities responsible for variant power potential and the law -- its creation and enforcement.

> "The dynamics of crime can be understood within the contexts of structures of injustice that are created by the powerful to further their domination"
>
> (Krisberg, 1975:20).

The assertion that no act is inherently criminal or pathogenic is basic to the conflict perspective. "Nothing is inherently criminal, it is only the response that makes it so" (Chambliss, 1974:39). Deviance is not a quality that lies in the behavior itself, but rather in the interaction between the actor and audience. Criminality is an ascribed status, i.e., subjectively problematic as

opposed to objectively given. Therefore, in order to understand the dynamics of crime, an attempt must be made to isolate those factors responsible for the differential definition of behavior as criminal. As no rule has ever been demonstrated to be present in all human societies, and given that the behavioral elements of an illegal act are not more specific to deviant as opposed to conforming conduct (Turk, 1969); it is concluded that deviance is relativistic in character and varies temporally and cross-culturally.[6]

Certain critics have questioned the validity of this assertion. Wellford (1975) argues that all societies have found it functional to proscribe certain acts (murder, rape, assault, theft, etc.). He maintains that serious violations are universally understood and are, in that sense, intrinsically criminal. Newman (1976) administered structured interviews to urban and rural samples in six countries. He concluded that consistency existed across cultures in terms of their disapprobation of traditional, serious crimes. However, eveidence of consensus with respect to certain crimes need not be interpreted as destructive of conflict theory. To the extent that powerful groups have been able to stabilize their positions through programs of indoctrination, ideological consensus should be prevalent (Turk, 1976). A "false consciousness" could have been created (Quinney, 1974). Regardless of the validity of this assertion, the assumption of the relativistic nature of deviance buttresses the subsequent premise that crime is

defined by the powerful to control the less powerful. As the composition of power segments varies over time and/or from one society to another, it is maintained that crime definitions and the application of the definitions will vary concomitantly.

The ubiquitous conflict process influences both the enactment of laws and the administration of the legal system. Conflict proponents advance somewhat different explanations with reference to the creation of criminal definitions. Chambliss and Seidman (1971) argue that the character of the legal system in complex societies can be understood as deriving from the conflicts inherent in the structures (stratified economically and politically) of such societies. Consequently, the legal system will reflect and protect the values of those social groups whose control of a society's economic and political resources results in the acquisition of sufficient power to ensure the formalization of their interests in law.

Turk (1969) views the legal system as a product of the conflicts between authorities and subjects in imperatively coordinated collectivities. Superordinate-subordinate relationships are inevitable. Therefore, the powerful must seek ways of legitimizing their power, i.e., of transforming it into authority, and subsequently stabilizing the authority relationships. The criminal law is employed to achieve these objectives. Turk's conceptualization revolves around the concept of authority as legitimated

power. Whereas power is linked to individual personalities, authority is associated with social positions or roles. It is the differential distribution of authority which proves a crucial factor in systematic social conflicts.

Quinney (1970) maintains that criminal laws exist because of conflicts of interest between social segments. The more powerful segments seek to resolve these disputes and regulate the behavior of their opponents through the process of criminalization. Consequently, behaviors are defined as criminal when they pertain to actions that threaten the interests of social segments with power to shape public policy. In a later work, however, Quinney (1974) transforms his earlier formulation into a Marxist analysis which portrays criminal law as an instrument whereby the dominant ruling class maintains and perpetuates its hegemony in the capitalist social and economic order. The solution to the crime problem lies in the collapse of the capitalist system and the creation of a socialist society.[7]

In sum, power lies at the heart of social organization. It is power differentials which ultimately determine the resolution of social conflicts. The form and content of the legal system are derived from the conflicts inherent in the societal structure. Ultimately, crime is defined to protect and enhance the interests of the entrenched power-holders to the detriment of the less powerful.

This conception of the creation of laws by competing groups presents a number of difficulties. First, little attention is given the possibility of "coincidence of interests". Second, conflicts of interest can involve numerous groups with relatively distinct interest hierarchies. Conflict formulations, however, tend to reduce this struggle to one involving two dialectical forces intent on each other's destruction: the powerful and the powerless - variously defined as authorities-subjects (Turk, 1969), power elite-nonelite (Thio, 1973), or ruling class-ruled (Quinney, 1974). This simplified stratification model has contributed to the general tendency among conflict theorists to suggest, perhaps unwittingly, that certain groups, e.g., business interests, regularly prevail. Consequently, problems are encountered in accounting for legislation, such as anti-trust laws, which seek to control business activities (Hopkins, 1975). Conflict theory posits that the legal system reflects the interests of the most powerful group at any particular time. It has neglected systematic analysis of how the locus of power may shift over time or across issues.[8]

Conflict proponents maintain that interests or values cannot be protected effectively nor enhanced by the mere formulation of criminal laws; their enforcement and administration are required. The authority to apply criminal definitions is delegated to legal agents - police, courts, correctional officials. However, the manner in

which these agents carry out their mandate has been imperfectly outlined. The dualistic stratification model makes it difficult to incorporate the role of the "middle classes" who supply legal agents (Sykes, 1974). Nevertheless, it is generally argued that legal agents represent the interests of the powerful. Although enforcement patterns may be influenced by the nature of the offensive behavior, by community expectations, by organizational demands, and by career considerations (Quinney, 1970; Chambliss and Seidman, 1971), the activities of legal agents, in the final analysis, reinforce dominant interests and values.

It is not rule violation per se, but rather the act of being labelled a violator which is essential to the criminalization process. Deviant behavior is widespread in society (as revealed by self-report and victimization studies). Not all law violators are subjected to punitive sanctions, however. Consequently, it becomes important to determine the basis of differential official response to crime. Legal agents, given limited resources, must determine their most effective allocation. Conflict theorists maintain that enforcement/administration decisions are rendered on the basis of what offenders "are" rather than what they "have done". Thus, the application of criminal labels by legal agents is determined by offender rather than offence characteristics.

Age, sex, race, and socioeconomic status are posited as the major offender characteristics which influence

differential criminal justice decision-making. This proposition is derived from the rather pervasive finding that, for most criminal offence categories, official rates are highest for lower class, minority group, young males (Turk, 1969: 17). It is argued that these differential rates cannot be attributed solely to corresponding variations in behavior patterns. Rather, those categories are related to the condition of power. The individuals possessing these attributes, singly or in combination, are least likely to wield sufficient power to avoid the application of criminal definitions by legal representatives.[9]

In brief, the conflict orientation maintains that, while the ideal of justice is fundamental to criminal law, its realization in practice is a myth. Despite official rhetoric as to the impartiality of the application of the criminal code, discretion is exercised by legal agents at every step of the criminal justice process. Moreover, discretion in the administration of justice operates to the detriment of less powerful individuals and social groups.

Conflict theory asserts that decisions in the criminal justice system are made primarily on the basis of legally irrelevant factors. It is concluded, often without empirical investigation, that discontinuities resulting from the exercise of discretion will be deleterious to disadvantaged social groups. For example, Chambliss and Seidman (1971: 475) maintain that: "When sanctions are imposed, the most severe sanctions will be imposed on persons in the lowest

social class." Conflict proponents offer a model of criminal justice administration in which a number of correlated, extralegal offender characteristics, e.g., age, sex, race, and social class, determine the decisions rendered by legal agents throughout the justice network. At best, the consideration of legally relevant factors may mitigate the extralegal offender attribute-decision correlations. Nevertheless, the relationships will remain significant. In an attempt to gauge the validity of this model, an examination of the relevant literature with reference to the exercise of discretion will be undertaken.

Discretion - A Review of the Literature

Criminologists have approached the discretion issue by investigating the possible discriminatory impact of extralegal offender attributes on the administration of criminal law. Many criminological works simply assume, without empirical documentation, that discrimination exists. For example, Wald (1971:598) states that:

> "The poor are arrested more often, convicted more frequently, sentenced more harshly, rehabilitated less successfully, than the rest of society."

In a similar vein, McDonald (1976:136) asserts:

> "Nor do I wish to pursue the issue of what types of people are more likely to be charged, convicted or otherwise punished for offences, for these, the answers are only too well known: the poor, especially the unemployed, young, males, and persons of low ethnic status."

In contrast to the aforementioned declarations, however, a review of the relevant empirical research completed to date uncovers a number of studies whose conclusions dispute the conflict theorists' claim of extralegal bias with reference to criminal justice administration.

Police Discretion. Although Tieger (1971:717) claims that: "the reality of the street is one of discriminatory and selective enforcement", the majority of studies pertinent to police discretion have not uncovered striking evidence of discrimination, especially with reference to the more serious offences.[10]

It is important to realize initially that police forces operate primarily as reactive rather than proactive agencies. Black and Reiss (1967), as an illustration, found that police initiated contact in only 14% of the criminal situations observed. Consequently, the discretionary potential of police activity is sharply circumscribed by citizen control of information with reference to criminal violations and their willingness to communicate that information to the police. The majority of opportunities for the exercise of discretion arise through citizen rather than police initiative. In addition, it would appear that the latter are often reluctant to exercise their discretionary power, e.g., with reference to arrest. A study of police-citizen encounters in selected precincts of three American cities revealed that routine police work

infrequently involved arrest. In those situations where both a complainant and a suspect were present (N=176), an arrest occurred in 58% of felony encounters and 44% of misdemeanour encounters (Black, 1971:1093). Thus, discretion is utilized in many cases to avoid the initiation of the criminal process.

With reference to the operation of discrimination in police dispositions, Goldman (1963) examined the arrest records of 1,083 juveniles from four Pennsylvania communities. Seriousness of offence was the prime factor in determining court referral decisions. Although the offender's sex was not related to the referral decision, associations were found between police action and age and ethnicity (for minor offences). Notwithstanding these correlations, the study's lack of rigor in controlling for extraneous variables such as the number of previous arrests renders a conclusion of extralegal bias questionable.

Terry (1967) analyzed over 9,000 juvenile offences committed in Racine, Wisconsin, during a five-year period. He uncovered no evidence of sexual, racial, or socioeconomic status discrimination in the severity of police treatment of juvenile offenders when seriousness of offence and offence record were held constant. The results of other investigations by Bodine (1964) and McEachern and Bauzer (1967) parallel those announced by Terry in that social class factors appear to exert little influence on police disposition of juvenile cases. It should be noted, however,

that the studies cited above found age to be related to police disposition. That is, the older the juvenile offender, the more likely the court referral. Similarly, Weiner and Willie's (1971) study of the effect of offender race and SES on police juvenile officer decisions in Washington and Syracuse uncovered no evidence of bias.

Williams and Gold (1972) compared the self-reported delinquent behavior and the officially-recorded deviance of a national sample of 13- and 16-year old youths in 1967 (N=847). Both types of conduct were analyzed for sex, age, race, and socioeconomic status differences. Although 88% of the teenagers admitted committing at least one chargeable offence in the three years prior to the interview, only 9% were detected by police and less than 1% were recorded as official delinquencies. Although more of the older teenagers were found to have police records, they reported more frequent and serious transgressions than the younger ones. White boys reported less serious delinquencies than black youths and lower-status white girls acquired police records more often than black girls. By and large, race and social status were unrelated to self-reported delinquency. Nor did the police discriminate along racial or social status lines in terms of putting apprehended offenders on record. Although blacks were referred to juvenile court relatively more often, a perusal of court records (N=16) revealed that the greater number of court referrals among blacks were restricted almost completely

to individuals with repeated offences recorded.

Wolfgang et al (1972) completed a cohort study of the delinquent involvement of all males born in 1945 who lived in Philadelphia from their tenth to their eighteenth birthdays (N=9,945).[11] Of the numerous background factors analyzed, they concluded that race and SES were most strongly related to the delinquent-nondelinquent dichotomy. Nonwhite juveniles had higher delinquency rates than comparable groups of whites. In fact, the authors noted that:

> "so pervasive is the race variable that higher SES nonwhites exhibit a total delinquency rate slightly higher than that of lower SES whites."
>
> (1972:67)

With respect to case disposition, they concluded that the most significant factor affecting a boy's being fully processed by the justice system rather than merely having his offence recorded without subsequent legal action by the police, was his racial group membership (1972:252). This finding would appear to offer some support to those who argue that law enforcement is prejudicial.

However, Jensen, in a review of their cohort study, argued that the authors' conclusions could not be substantiated given their mode of analysis. He maintained that:

> "the authors switch the form of the analysis from examining the extent of delinquency involvement among boys differentiated on the basis of background variables to the distribution of background characteristics among boys differentiated on the basis of their involvement in delinquency."
>
> (1974:548)

In short, they erred by percentaging in the wrong direction. Jensen (1976) reanalyzed the interrelationships among race, achievement level, and delinquency. He found no evidence to substantiate the claim that race and SES were more strongly related to delinquency association than achievement level. Nor was the achievement level-delinquency association a spurious one due to race. In fact, both race and achievement level were related to delinquency. It is possible, therefore, that the cohort study's conclusions are in error with respect to other variables as well.

Other police discretion research has focused on the police-citizen encounter per se rather than relying on official statistics which represent the outcome of police contacts. Piliavin and Briar (1964) systematically recorded 66 police-juvenile encounters in an American industrial city. They concluded that it was the "demeanour" of the juveniles which formed the basic set of cues used by police officers in determining final disposition. In other words, the racial differential in the severity of policy decisions was a product of the fact that blacks tended to demonstrate a demeanour which provoked police punitiveness. It must be noted, however, that police discretion was minimally affected by such extralegal considerations when the offence was a serious one.

A study by Ferdinand and Luchterhand (1970) of teenagers from six inner-city neighborhoods in an eastern American city supported the assertations cited above. The

authors noted that racial differences in police disposition could be attributed to the greater rejection of public authority exhibited by black youth (as measured by questionnaire responses). Once again, however, white and black teenagers were treated in a more similar fashion as the number of previous offences committed by a youth and the seriousness of the offence increased.

Black and Reiss (1970) employed trained observers to record police-citizen encounters in selected precincts of three large American cities. They noted that police encounters with black juveniles involved more serious offences than those with white youths. As only a few of the encounters were terminated by arrest, some of the racial differential in the arrest rate could be explained by the more serious nature of crimes committed by blacks. In addition, higher arrest rates for black juveniles could be attributed to whether a citizen complainant participated in the encounter. More complainants (who were themselves black) sought severe dispositions with reference to black youths than white offenders. When no complainants were present, racial difference in arrest rate nearly disappeared.

Hohenstein (1969) analyzed the disposition of juvenile offenders in Philadelphia in 1960 using predictive attribute analysis. The three most important factors influencing the disposition decision were the attitude of the victim toward prosecution, the previous record of the offender, and

the seriousness of the delinquent event in question. Notably, when the victim did not favor prosecution, the police complied with his wishes in 96% of the cases regardless of the seriousness of the offence or the offender's criminal record (1969:146). The age and sex of both offender and victim, and the racial origin of the latter were useless in the predictive typology. No evidence was uncovered which could be termed supportive of the claim of police bias in juvenile encounters.

Discretion at Other Stages of Justice. In addition to police-related research, attempts have been made to isolate the impact of discretionary choices at other stages in the criminal justice process. Limited research has focused on the extent of plea negotiation in the legal network (Newman, 1956; Vetri, 1964).[12] An ethnographic study of public defenders in Los Angeles (Mather, 1973) argued that the decision to initiate plea bargaining was influenced by the strength of the prosecutor's case and the seriousness of the case in terms of the possible severity of punishment upon conviction.

Little attention has been paid to the impact of extralegal attributes on plea bargaining. Wynne and Hartnagel (1975) studied the race-plea negotiation relationship by collecting data from the crown prosecutor's office in a western Canadian city. Initially, the zero-order relationship indicated that natives were less likely

to experience bargaining than white defendants. Controlling for additional variables uncovered a number of conditional relationships. That is, the impact of race on negotiation depended upon:

> "previous arrest record, the presence of repetitious counts and/or multiple charges in the indictment, being charged with an indictable or alcohol related driving offence, and representation by counsel."
>
> (1975:153)

While the authors contend that the results lend some support to the conflict hypothesis, the findings reveal that the offender characteristic-criminal justice relationship is much more complex than envisaged by conflict disciples. These findings indicate the necessity of a more sophisticated methodological approach which would control simultaneously for the effects of a number of alternative, explanatory variables.

Offender Attributes and Justice. Numerous writers have expressed the conviction that legally irrelevant offender attributes play a significant role in the sentencing process. For example, Quinney (1970:142) notes that:

> "Obviously, judicial decisions are not made uniformly. Decisions are made according to a host of extralegal factors, including the age of the offender, his race, and social class."

Green (1971) reviewed a number of studies, conducted between 1919 and 1951, which examined the sentencing behavior of criminal court judges. Although these research

efforts concluded that judicial dispositions were prejudicial, none pursued a systematic analysis of the impact of legal criteria on sentencing. Green argued that the researchers had failed to distinguish justice in law and justice before the law. He concluded that:

> "The crux of the error is that the criticism of sentencing practices is to a great extent deduced from objections to the system of criminal justice rather than induced from any sound factual basis."
>
> (1971:538)

Subsequently, the author studied the influence of legal and extralegal factors on sentences imposed by 18 Philadelphia judges (N=1,437 cases). Legal factors, e.g., seriousness of offence and offender's previous convictions, explained most of the sentencing disparity (Hood and Sparks, 1970).

Hagan (1974) reanalyzed twenty sentencing studies which treated one or more extralegal offender characteristics (age, sex, race, and socioeconomic status) as the independent variable(s). Overall, the studies examined were deficient in terms of methodological rigor. They tended to equate statistical and substantive significance.[13] Furthermore, many of the studies did not control simultaneously for legal variables and, as a result, were unable to examine the possibility of spurious (though statistically significant) associations. Hagan reexamined the studies, computing tests of significance (where needed) and measures of association. Generally, a small relationship was found between the extralegal offender attributes and sentencing

decisions. Relationships between both age and sex, and judicial disposition did not remain statistically significant when controls for legally relevant factors (offence type and prior record) were introduced. Controlling for offence type and prior record also reduced below statistical significance the relationships between both class and race, and sentencing decisions in samples of noncapital offences. However, some evidence of racial and class discrimination was found in the studies involving capital offences (homicide and rape).[14] The review of sentencing studies led to the conclusion that, while there might be some evidence of discrimination in sentencing, knowledge of extralegal offender characteristics contributed little to the ability to predict judicial disposition.

Other sentencing studies suggest the possibility of discrimination with reference to judicial disposition. Chiricos et al (1972) examined 2,419 felony cases in Florida in order to determine the likelihood of receiving a deferred sentence involving "nonadjudication of guilt" (thereby avoiding labeling and stigma) as compared to other, more serious, sentences. They found that whites were spared the stigma of adjudication of guilt more often than blacks regardless of age, education, offence type, and prior criminal record. However, it should be noted that "prior contact" variables such as the number of previous convictions were more strongly related to adjudication status than any other cluster of variables.

Thornberry (1973) determined that, within an age cohort of juveniles in Philadelphia,[15] black juveniles were more likely to be institutionalized than whites. The relationships between both race and SES, and disposition remained even when seriousness of offence and number of previous offences were controlled. These conclusions rest on the validity of his inferences from percentage analyses as measures of association were not calculated. Wellford (1975) measured the strength of association in Thornberry's tables of racial effects on disposition. When seriousness of offence was controlled, the association between race and severity of disposition was substantially reduced.[16] Consequently, Thornberry's conclusions are open to debate.

Recent studies have employed sophisticated methodological techniques in an attempt to isolate the impact of extralegal factors on sentencing. Offender-based transaction statistics were used to analyze the sentencing of California felony offenders (Pope, 1975a). Test factor standardization revealed no racial differences in sentence or probation lengths for either urban or rural areas at the lower or superior court level. No "substantial"[17] differences were observed between male and female defendants in urban and rural lower courts with regard to the length of time sentenced to incarceration once prior record was controlled. At the superior court level, however, females received shorter sentences regardless of prior record. No sex differences were found with respect to probation length

for either urban or rural areas. Assault and burglary offences were selected for additional analyses (Pope, 1975b). Predictive attribute analysis established the importance of prior record and criminal status (whether or not the offender was under probation or parole supervision at the time of arrest) in influencing sentence outcome. Racial differences were negligible. However, males consistently received more severe sentences than females. The author (1975:29) concluded that:

> "In most instances, where bivariate relationships were found to exist between a defendant's age, race or sex and sentence outcome or length of commitment, these differences tended to disappear when previous criminal involvement was statistically controlled."

The prejudicial treatment hypothesis was tested by using case history records for all juveniles referred to Denver County, Memphis-Shelby County, and Montgomery County courts in 1972 (Cohen, 1975). Stepwise multiple regression analysis and predictive attribute analysis showed that the greatest amount of variation in the nature and severity of the decisions rendered by the courts was accounted for by prior processing decisions. That is, juveniles who had formal petitions filed against them and those who were placed in detention centers before adjudication received the most severe dispositions. Ethnicity or socioeconomic status were not major determinants of disposition.

Burke and Turk (1975) used Goodman's log-linear analysis technique to examine the association between

social disadvantage and criminalization. Data were gathered from a random sample of adults arrested in Indianapolis in 1964 (N=3,941). Their research revealed that race exerted little discernible impact on judicial disposition. Moreover, the occupational status-disposition correlation disappeared when offence type was controlled. Their study hints at the possibility that class-linked behavior variations rather than discrimination are responsible for sentencing disparities.

Chiricos and Waldo (1975) tested the conflict proposition that less powerful groups are more likely to have their members designated as criminals. More specifically, they examined the relationship between socioeconomic status and severity of prison sentence employing multiple correlation and regression techniques. Data with reference to 10,488 inmates sentenced for seventeen specific criminal offences were gathered from admission summaries provided by adult correctional agencies in North Carolina, South Carolina, and Florida. SES explained no more than 2% of the variance in sentence length (1975:760). However, it should be noted that all of the variables considered were able to explain only a minimum amount of sentence length variation for any of the crimes analyzed. When beta coefficients were calculated,[18] only prior convictions produced a consistent pattern across offence types. The other variables (SES, race, age, arrests, juvenile commitments, and urbanization) provided few statistically

significant coefficients. In short, no support was found for the conflict proposition.

Few studies have analyzed the treatment of natives by legal agents, although disparity of treatment is often advanced as a truism. Bienvenue and Latif's (1975) Winnipeg study indicated that indian males and females were over-represented in terms of arrests and all forms of court disposition. However, unauthorized discretion could not be ascertained precisely as controls were lacking for alternative explanatory variables.

Hall and Simkus (1975) compared natives and whites in a western state with respect to the percentage of offenders receiving various types of sentences (graded for severity). The relationship was investigated using multiple regression analysis and 15 test factors were employed as controls. It was demonstrated that natives were less likely to receive deferred sentences and more likely to be given sentences involving incarceration regardless of offence type; whether or not they had committed prior felonies; and within all categories of education, occupation, length of sentence, sex, and marital status. Controlling simultaneously for all the test factors significantly reduced but did not eliminate the white-native differential in receiving a deferred sentence. However, the probability of receiving a deferred sentence was only .08 greater for a white than a native American. In addition, the ethnicity relationship was either reversed or absent among the categories of offenders

who were most likely to receive the severest sentences (1975:210).

By and large, discretion research has investigated the impact of legal and extralegal factors on decision-making in separate stages of the justice process, i.e., by analyzing the decisions rendered by individual categories of legal officials (police officers, prosecutors, judges, etc.). However, the legal system is composed of a number of legal roles connected by a system of exchanges. Therefore, it may prove necessary to consider a number of these sectors simultaneously in order to mirror the actual operation of the legal process.

A recent study attempted this task by examining the operation of extralegal factors on the combined prosecutorial and judicial sectors (Hagan, 1975a) with the aid of path analysis techniques. The author constructed a model of the prosecution-sentencing process utilizing data acquired from a sample of offenders (N=1,018) drawn at random from prosecution files (covering a six month period) in a western Canadian city. The independent variables were categorized as: extralegal (race and SES), legal (prior arrest, seriousness of charge, and number of charges), and procedural (presence of defense counsel, initial plea, and charge alteration). The dependent variable was the case disposition. The resulting causal model (inductively constructed) revealed that the procedural factors directly

affected case outcome. Each legal variable directly affected final disposition, as well as directly or indirectly affecting procedural variables. The extralegal variables were not directly linked either to procedural factors or final disposition. Rather, they exercised their influence in the model through their direct links with legal variables. In short, the impact of race (white vs. indian and métis) and SES on sentencing was indirect and mediated by legal factors.[19] The data were not supportive of the conflict perspective. The impact of the procedural variables, on the other hand, hinted at the possible value of considering the influence of organizational features and constraints on decision-making in the legal system.

Path analysis techniques were employed in a related study to gauge the impact of extralegal factors in the presentencing process (Hagan, 1975b). Data were collected from 765 questionnaires completed in 1973 (over a five month period) by probation officers in 17 cities in a western Canadian province. The variables were categorized as: extralegal (race and SES), legal (prior convictions, offence seriousness, and number of charges), interaction (probation officer's perception of offender's demeanour, and his evaluation of prospects for success on probation), and organizational (probation officer's recommendation). The dependent variable was final disposition. Path analysis techniques were used inductively to establish the causal linkages between factors. There was a strong direct link

between probation officer recommendation and final disposition. Probation officer evaluation of success was also a central variable. Race (white vs. indian and métis) and SES were not directly related to final outcome and their influence was exerted through their direct links to intervening variables. Once again, the data were not supportive of the conflict tenets. A further examination of the probation officer's role in the presentencing process revealed that the impact of extralegal variables was mediated by the officer's evaluation of offender success prospects. Interestingly, the influence of extralegal factors increased when recommendations were requested by the court. In those situations, the officer acted as a "channel of extralegal influence in sentencing" (1975b:630). These recent studies illustrate the complexity of the task which confronts the researcher who would attempt to analyze the exercise of discretion in the criminal justice system.

Conclusion

What conclusions can be drawn from the preceding literature review with reference to discretion the character of its exercise and its correspondence to conflict perspective interpretation?

First, one is led to conclude that the boundaries within which discretion can be exercised by representatives of the criminal justice system are narrower than is

commonly believed. Given the largely reactive nature of law enforcement, the discretionary potential of legal agents is sharply circumscribed by the willingness of the citizenry to report criminal activity. Furthermore, discretionary power is often exercised in such a manner as to avoid the initiation or continuation of the criminalization process. In that sense, it might prove more valuable to address the issue of selective nonenforcement of criminal justice rather than discriminatory application of sanctions.

Second, the evidence generated by the research efforts surveyed in this chapter would appear to offer little support to the hypothesis of prejudicial exercise of discretionary power by criminal justice system officials. The thesis of discriminatory decision-making is derived from the overrepresentation of young, lower-class, minority group males in all stages of the justice process. A careful analysis of the literature questions the validity of that inferential leap. In general, the tenet of bias in the legal system is not substantiated by this review of the literature, especially with reference to those offences which arouse the greatest amount of public concern.

A number of studies have reported statistically significant correlations between certain extralegal factors and official dispositions. However, these associations tend to disappear when legal variables are introduced as test factors in order to assess plausible rival hypotheses. In fact, this review repeatedly notes the salient influence

of offence-related characteristics and criminal histories on decision formulation in the justice process. Seriousness of current offence and prior criminal involvement are usually revealed as the most powerful explanatory variables. The extralegal offender traits which have traditionally been investigated by researchers, i.e., age, sex, race, and social class explain little of the variation in official dispositions.[20]

On Method. The lack of methodological rigor in earlier empirical work reinforced the belief in prejudicial criminal justice administration. Although more recent studies have attempted to consider additional relevant factors, few have endeavored to control these variables simultaneously. Those studies which have adopted this mode of analysis indicate quite clearly that the variable associations are much more complex than originally envisaged. A sophisticated methodological approach is required in order to discern with greater accuracy the exercise of discretion in the criminal justice network.

Finally, the implications of the present review of the literature for conflict theory must be examined. The evidence considered in this chapter reveals little support for the discrimination thesis as an explanation of the overrepresentation of disadvantaged social groupings in the criminal justice process. However, this conclusion need

not be interpreted as proof of the inadequacy of the conflict perspective, albeit it suggests a reformulation. Prejudicial decision-making is not a necessary tenet of conflict theory. Conflict proponents stress that the legal system reflects and protects the interests of the powerful. As the interests of the powerless are less likely to be enshrined in law, their actions are subject to a greater probability of definition as criminal. For example, Quinney (1970:21) asserts that:

> "persons in the segments of society whose behavior are not represented in formulating and applying criminal definitions are more likely to act in ways that will be defined as criminal than those in the segments that formulate and apply criminal definitions."

Consequently, certain social segments, given their comparative lack of power, are subject to a greater "categoric risk" of criminal involvement. Similarly, Turk argues that conflict theory does not imply that legal officials "discriminate against less powerful and on behalf of more powerful people" (1976:292). Rather, the theory implies that:

> "the legal rules ... will tend to exclude or define as less serious the tactics available only to more powerful people in the struggle to maximize life chances, while including as relatively serious some tactics available to virtually everyone, but more likely to be adopted by the less powerful, largely as a function of the unavailability of those other and presumably less risky tactics 'reserved' for the more powerful."
>
> (1976:292)

Thus, the legal game is loaded in favor of the social groupings with power. Consequently, the less powerful run a greater risk of criminal involvement even if they play by the rules of the game and regardless of prejudicial treatment by criminal justice officials. In fact, the indirect effects of extralegal attributes documented in path analysis studies (Hagan, 1975a; 1975b) suggest that the disproportionate involvement of the socially disadvantaged in officially-recorded deviant conduct might more properly be explained by class-linked or social segment-linked behavior pattern variation rather than legal bias.

In sum, the conflict perspective offers two conceptualizations of the exercise of discretion by legal agents. It suggests two different interpretations of the correlations between certain extralegal attributes, i.e., sex, age, race, and social class, and the decisions formulated in the various sectors of the criminal justice system: prejudicial treatment and social segment-linked behavior variation.

The former argues that legal representatives discriminate against certain segments of the population, e.g., young, lower-class, minority group males. To the extent that this thesis is correct, a model of decision-making in the criminal justice system should reveal that the impact of age, sex, race, and social class is exerted directly on the dependent variable - official disposition (even when other, plausible explanatory variables are introduced as controls).

With reference to the latter, it is argued that people behave in ways that have relative probabilities of being defined as criminal. Those individuals in the less powerful segments of society are more likely to behave in ways that are defined as criminal because their behavior patterns are not represented in the formulation and application of criminal definitions. For example, lower-class persons may differ significantly from their upper-class peers in terms of alcohol composition, drug usage, or employment behavior patterns - factors which may figure prominently in criminal justice decision-making. If this interpretation has merit, the corresponding model should reveal that the impact of age, sex, race, and social class is exerted indirectly through intervening variables.

In subsequent chapters, the applicability of these alternative models will be assessed through an empirical investigation of the exercise of discretion in an important sector of the criminal justice network - the parole system.

FOOTNOTES

1. Reiss (1974) distinguishes discretionary choices from choices per se by arguing that the former are not generally open to examination by others. While one may agree that low visibility often characterizes and encourages the exercise of discretion; this would not appear to be a necessary condition for all types of decisions.

2. On the contrary, Kadish (1962:909) argues that certain criminal statutes seem deliberately to overcriminalize. That is, their scope is broad enough to ensure that certain suspects will be unable to escape prosecution because of an inability to prove that the suspects' actions are encompassed by the statute. As a result, enforcement agents must utilize discretion in order to determine whether the violation refers to the "real" offence with which the legislature was concerned. Such discretion is required in the enforcement of gambling laws, for example.

3. Justice can be understood as a multidimensional concept. Wexler (1975) differentiates procedural and comparative justice while Reiss (1974) discusses procedural and distributive injustice. Procedural justice refers to the proper or accurate application of rules to a particular case. Comparative or distributive justice refers to the rendering of identical decisions with respect to identical cases. The discretion debate concerns itself with the latter dimension of justice.

4. For a discussion of the relationship between justice and equality, see Benn and Peters (1969).

5. An outline and comparison of integration and conflict models of society can be found in Dahrendorf (1959). A comprehensive survey of the consensus/conflict debate in the eighteenth, nineteenth, and twentieth centuries can be found in McDonald (1976).

6. The labelling and conflict perspectives share a number of assumptions with reference to crime. However, the latter pays little attention to the social-psychological processes of becoming deviant and adapting to the criminal label. See Ericson (1975) for an analysis of both perspectives.

7. Denisoff and McQuaire (1975) reviewed Quinney's presentation of crime and crime control in capitalist society. They concluded that, although the theory suggests that the Marxist formulation may prove important to criminology, Quinney's interpretation is a fundamental misrepresentation of the Marxist paradigm.

8. Both Quinney (1970) and Turk (1969) have recognized this possibility. However, the former subsequently abandoned this train of thought in his later Marxist analysis.

9. Sex differences in criminal involvement are interesting in that they suggest that discriminary power may be exercised to mitigate as well as aggravate the impact of criminal sanctions.

10. It should be noted that the bulk of the police discretion research pertinent to the discrimination hypothesis involves juvenile offenders rather than adults. Police officers can exercise more discretionary power with reference to the former than the latter. Thorough reviews of police discretion research can be found in Hagan (1972) and Nettler (1974).

11. The sample was selected from a population of males who were born in or outside of Philadelphia, but who resided in the city from their tenth to their eighteenth birthdays.

12. Plea negotiation refers to a process of bargaining between the prosecutor and defence counsel or accused in which an agreement is reached whereby the accused enters a plea of guilty in exchange for charge reduction or a favourable sentencing recommendation from the prosecutor.

13. Tests of statistical significance are employed to determine whether a relationship exists between the variables of interest, subject to an accepted risk of error. They do not indicate, however, the <u>strength</u> of the relationship. As tests of significance are greatly influenced by sample size, measures of association must be employed to determine the strength of association. Only 4 of the 20 studies reviewed used such measures.

14. It should be noted, however, that jury trials are often employed in capital cases. These cases may more properly gauge jury rather than judicial bias.

15. Thornberry utilized the data assembled by Wolfgang et al's (1972) delinquency cohort study.

16. Thornberry purports to control for seriousness of offence by using the Sellin-Wolfgang seriousness index. However, the control variable is dichotomized into high and low seriousness. Low represents a score of one on the Sellin-Wolfgang scale while high equals a score greater than one - the entire scale as originally constructed. Wellford (1975:338) argues, therefore, that the key variable of offence seriousness was inadequately measured.

17. A ten percentage point difference was utilized as the criterion for determining substantial relationships.

18. This coefficient measures the amount of change in sentence length which is associated with a standardized change in an independent variable when the other independent variables are controlled (Chiricos and Waldo, 1975:766).

19. Although SES variation was statistically sufficient for analysis, the SES of offenders was persistently low. Therefore, the impact of class factors may have been muted by social sifting in earlier phases of the legal process (Hagan, 1975a:544).

20. Strictly speaking, it cannot be argued that this review of the literature constitutes a conclusive refutation of the discrimination hypothesis. Rather, it presents a considerable amount of conflicting evidence with reference to the thesis of prejudicial treatment and attempts to isolate some of the reasons for this disparity. In addition, it should be noted that the bulk of the empirical literature has concentrated on criminal justice decision-making in those situations where relatively serious criminal violations have occurred. It is quite possible that the exercise of discretion may be constrained by the severity of the offence and that discriminatory decision-making is more likely to occur in the case of minor infractions (which comprise a considerable proportion of the criminal justice system's workload). Furthermore, the research conducted to date

has focused primarily on a relatively small number of legal and personal-biographical attributes. As there is obviously no limit to the number of variables which could be included in an analysis of the decisions rendered by legal representatives, certain important factors may have been overlooked. These caveats clearly indicate a need for further analysis.

CHAPTER II

DISCRETION AND THE PAROLE PROCESS: A REVIEW OF THE LITERATURE

Empirical research with reference to discretion has focused almost exclusively on police and judicial dispositions. Very little is known about the exercise of discretion in the parole process. As is indicated in the following quotation from the President's Commission on Law Enforcement and the Administration of Justice (1967:12), it constitutes a particularly important subject for original research:

> "Except for sentencing, no decision in the criminal process has more impact on the convicted offender than the parole decision which determines how much of his maximum sentence a prisoner must serve. This again is an invisible administrative decision that is seldom open to attack or subject to review. It is made by parole board members who are often political appointees. Many are skilled and conscientious, but they are generally able to spend no more than a few minutes on a case. Parole decisions that are made in haste and on the basis of insufficient information, in the absence of parole machinery that can provide good supervision, are necessarily imperfect decisions, and since there is virtually no appeal from them, they can be made arbitrarily or discriminatorily."

Similar concerns have been voiced with reference to parole selection in the Canadian context. The Hugessen report (1973:32) contended that the criteria

on which the National Parole Board based its decisions were unclear:

> "Neither inmates nor members of the Board are able to articulate with any certainty or precision what positive and negative factors enter into the parole decision."

More recently, the Chief Justice of the Supreme Court of Canada attacked the operations of the Parole Board maintaining that:

> "The plain fact is that the board claims a tyrannical authority that I believe is without precedent among administrative agencies empowered to deal with a person's liberty. It claims an unfettered power to deal with an inmate as if he were a mere puppet on a string."
>
> (Edmonton Journal, 1975:1)

The parole process also requires that parole officers[1] exercise discretion in discharging their responsibilities. With reference to parole selection, individual officers must collect and collate the material which forms the basis for board member decision formulation. They conduct interviews with inmates in federal penitentiaries or provincial institutions and complete community investigations in order to assess the feasibility of proposed release plans and, concomitantly, the probability of parole success. Finally, they must make a recommendation to the Board, on the basis of their analysis, which may enhance or reduce the prospect that an application will be approved.

The parole officer's second basic responsibility involves the supervision and evaluation of parolee behavior. He must perform the formidable task of achieving a high level of surveillance and control while making use of the available opportunities to offer support, guidance, and assistance to his clients. The successful integration of these tasks requires flexibility and, of necessity, the exercise of discretion.

In short, discretion necessarily occurs whenever choices must be made between alternative courses of action. Decision-making by parole authorities - board members and officers - is inconceivable without the operation of discretion. As these decisions can influence signficantly the lives of those individuals with reference to whom they are rendered, an analysis of the factors which govern the decision-making process is a matter of considerable importance. More specifically, is parole discretion exercised discriminatorily in the sense of its being based on legally irrelevant factors?

Parole Prediction - A Review of the Literature

Considerable criminological research effort has been devoted to the prediction of initial and/or continued criminal conduct. In 1967, Savitz compiled a

bibliography citing over 600 prediction studies completed in the preceding half century. The present literature review will restrict itself to an analysis of the two cardinal types of parole prediction study: parole selection and parole outcome research.

I. Parole Selection Research

The parole board is viewed by many as one of the last bastions of arbitrary and unchecked power wherin the potential for bias is enormous. For example, Davis (1969:126) contends that:

> "In granting or denying parole, the board makes no attempt to structure its discretionary power through rules, policy statements, or guidelines; it does not structure through statements of findings or reasons; it has no system of precedents; the degree of openness is the least possible; and procedural safeguards are almost totally absent. Moreover, checking of discretion is minimal; board members do not check each other by deliberating together about decisions; administrative check of board decisions is almost nonexistent and judicial review is customarily unavailable."

Given this state of affairs, a board member has little incentive to avoid undue haste or prejudice.

Parole selection decision-making occurs within a statutory framework that can be described as vague with reference to both basic objectives and specific criteria (Cohen, 1969:27). Thomas (1963) argues that parole

selection occurs, not only in a formal setting governed by rules and regulations, but also in an informal setting where personal biases vis-à-vis certain offence types and public pressure may exert undue influence. Moreover, Hawkins (1972) claims that parole contributes to penal system management in the sense that general paroling policy may help to maintain institutional control of inmate behavior, contribute to the regulation of prison population levels, and/or cut costs. Other students of criminal justice administration (O'Leary, 1974; Kastenmeier and Eglit, 1974) have voiced similar concerns.

Parole board members render two kinds of decisions in the performance of their duties: 1) decisions with reference to individual cases, and 2) paroling policy decisions. The latter establish the broad framework within which the former are formulated. As these policies are, at times, poorly articulated, they may contribute to disparity in individual case decision-making. Efforts have been made to render paroling policy explicit in order to determine the sets of factors (i.e., the general concerns) which influence parole board activity.

Hoffman (1972) analyzed a 30% sample of decisions (N=270) rendered by Youth Correction Division members of

the United States Board of Parole from November 1, 1971 to January 27, 1972. After reviewing a case, each board member completed an evaluation sheet composed of four rating scales. Each member estimated: 1) the severity of the offence; 2) the applicant's participation in institutional programs; 3) institutional discipline; and 4) the probability of favourable parole outcome. Finally, each parole decision recommended was recorded. The relationships between the subjective ratings and the parole decisions were analyzed by multiple regression techniques and policy profiles (scattergrams with best-fitting lines) were plotted. It was discovered that, at the initial parole hearing, board members assigned primary weight to severity of offence.[2] Secondary weight was accorded their estimate of parole violation risk. However, if parole was not granted at the initial hearing, the applicant's institutional adjustment (program participation and discipline) became a primary determinant of release at subsequent hearings. Thus, implicit paroling policy was made explicit. It should be noted, however, that the subjective nature of the measures employed allows for the possibility that the ratings described rationalizations for decisions rather than determinants of same.

A number of observational studies have identified certain factors which appear to influence parole selection decisions (Dawson, 1966; Hawkins, 1971). These studies suggest that selections for parole are based on numerous considerations only some of which are reflected in the statutes which provide the legal criteria for granting or denying parole. Probability of recidivism or risk is a prime consideration in the parole verdict. This probability is ascertained by examining at least some of the following factors: psychological change (as evidenced by institutional reports, psychological evaluations, and the inmate's demeanour during the parole hearing); participation in institutional programs; institutional adjustment (as gauged by discipline reports); criminal record; prior experience on probation and/or parole; circumstances surrounding the offence; and parole release plans.

Other research efforts have attempted to isolate influential selection factors by analyzing parole and penitentiary file data. Léveillé (1970) employed predictive attribute analysis in order to identify the factors most highly correlated with a decision to grant or deny parole by the Canadian Parole Board with reference to a sample of 300 male parole applicants incarcerated in the St. Vincent-de-Paul Complex. He concluded that the decision was directly influenced by

the positive or negative opinions expressed in the institutional and parole reports, and the favourable or unfavourable nature of the community investigation. The factors most highly correlated with the parole decision were criminal record, past parole performance and employment status upon release. Interestingly, the process of granting a parole (in terms of the number of factors examined) was more complex than that of denying such an application.

Waller (1974) analyzed the conduct of 423 men released from federal institutions in Ontario in 1968 by comparing parolee and dischargee recidivism. With reference to parole selection, comparatively few statistically significant differences were found between the two groups. Parolees did not differ significantly from dischargees in terms of age at sentence, religion, race, or socioeconomic background (as indicated by father's occupation). However, penal record proved to be a highly efficient predictor of release on parole as a high proportion of inmates with no previous commitments were granted parole.

A review of parole in England and Wales (Nuttall et al, 1975) studied the selection process by examining 1,682 parole decisions (878 first review and 804 subsequent review) taken during the first 5 months of 1972. Automatic Interaction Detection[3] was used to relate

decisions to the most significant predictor variables. With reference to initial review, the number of previous convictions, intended living arrangements on release, and sentence length were most predictive of parole recommendation. At this stage, parole judgments were primarily concerned with past criminal behavior. Social factors did not emerge, on the whole, as important considerations in terms of parole selection. However, changes in the relative importance of factors were noted in the cases of individuals unsuccessful in their initial attempts to obtain parole. Living arrangements on release, marital status, and behavior in the institution were most strongly related to parole selection at the second or a subsequent parole review. Previous convictions played but a small part in explaining recommendation rates at this stage.

Bedford (1974) carried out an analysis of board decisions for the 287 women reviewed for parole release in England from 1968 to 1971. The number of previous convictions showed the most marked relationship with the decision to grant or deny parole. The negative correlation between proportion paroled and previous convictions still held when age at conviction, offence type, previous imprisonment, probation history, living arrangements on release, and interval at risk since last conviction were held constant.

With the adoption of indeterminate sentencing structures by many American states, the task of fixing the length of an inmate's period of incarceration (and, in a sense, the severity of his punishment) has been transferred from the judiciary to the parole board. Consequently, the board's discretionary power has been increased. Scott (1974) studied the criteria utilized by parole boards in determining the length of incarceration of offenders prior to parole release. The sample consisted of all female inmates (N=34) and 25% random sample of all males (N=325) released from a midwestern state's institutions in 1968. The data were analyzed by correlation and multiple regression techniques. Three sets of factors were examined: 1) legal (seriousness of crime and prior criminal involvement); 2) institutional (number of disciplinary reports and institutional adjustment); and 3) biographical (age, education, I.Q., marital status, race, residence, sex, and socioeconomic status). The dependent variable (severity of punishment) was operationally defined as the number of months incarcerated. The seriousness of the crime for which the inmates were convicted proved to be the best indicator of length of incarceration, even when the other variables were controlled for. Only a very weak link was found between length of incarceration and prior criminal record. Those offenders

who received the greatest number of disciplinary reports were incarcerated the longest. Surprisingly, those inmates with good instituional adjustment (as measured by a scale composed of nine items) were incarcerated for longer periods than those with poorer adjustment scores. Scott suggested that parole boards have to contend with extensive workloads. Thus, the time allocated to decision-making is quite restricted. As a result, unquantified variables such as institutional adjustment and prior criminal involvement, which require time and effort to assess, have little impact on the decision as to length of institutionalization (1974:219). Older offenders were punished more severely than younger inmates. There were no statistically significant racial differences with reference to length of incarceration. Inmates with higher I.Q.'s and those who had completed more schooling were paroled earlier than those with lower I.Q.'s and less education. These differences were not statistically significant, however. Married inmates were paroled sooner than those who were single or had broken marital ties. The residence (in/out of state) - severity of punishment relationship was not statistically significant. Women were paroled earlier than men as were inmates with higher SES (as measured by Hollinshead's Occupational Status Scale).

When the variables were analyzed as sets, the legal set accounted for 70% of the variation in severity of punishment. The biographical and institutional sets accounted for only an additional 9% of the variation (1974:221).

A critical analysis of certain parole release studies concluded that the impact of personal-biographical characteristics on parole board decisions has been overestimated (Simkus et al, 1974). Data were drawn from the prisoner records used by the parole board of a western state from June 1966 to July 1971. Multiple regression analysis revealed that the personal-biographical factors did not exert any direct influence on parole denials or the eventual length of incarceration. Rather, their impact was exerted indirectly via their direct links with the length of sentence imposed by the court. Length of sentence was directly and significantly related to eventual length of incarceration.[4] The seriousness, length, and consistency of an offender's criminal history were shown to exert the greatest influence on parole board decisions.

Finally, Carroll and Mondrick (1976) investigated the possibility of racial bias in the decision to grant parole. They examined the cases of 243 prisoners in an eastern correctional institution who appeared before a parole board from October 1, 1970 to September 30, 1971.

No evidence of direct racial discrimination was found. They argued, however, that the board differentiated between black and white applicants in selecting and weighting information when formulating parole decisions. Compared to white prisoners, blacks had an additional criterion to meet in order to be paroled - participation in institutional treatment programs. This finding was interpreted as evidence for indirect racial discrimination. Thus, black and white applicants might be evaluated according to different criteria although they were paroled in about the same proportions.

Other research efforts have begun to reveal the complexity of the parole decision-making process. McNaughton-Smith (1976) examined the relationship between the grant or denial of parole and individual items of information selected from the files of a sample of inmates in Canadian penitentiaries between 1962 and 1964.[5] Chi-square measures of association were calculated between the dichotomized items and the parole release decision. On the whole, the information taken from the files accounted for half the variance in the board decisions (R=.71). Interestingly, a significant relationship was found between the "source" of an item of information and parole selection. That is, rank-ordering or items grouped according to source

(parole service report, custodial report, police report, classification report, inmate application, etc.) suggested differential impact on board decisions. More weight was given to information supplied by the parole service, by judges, by the penitentiaries (in descending order), etc. Information from inmates and correctional "outsiders" was accorded least importance. In fact, a two-way analysis of variance concluded that the board was more influenced by the source of an item than by the topic to which the item referred (1976:121). This finding led the author to conclude that the parole release decision was determined primarily by bureaucratic considerations.

A number of empirical studies have focused on the hypothesis that decision-making variation is associated with factors related to the decision-makers per se and is not merely restricted to offender- and offence-related attribute variation. Gottfredson and Ballard (1970) tested this hypothesis by studying the behavior of paroling authorities in setting prison terms prior to parole release. They developed two statistical techniques which provided a score for each inmate representing the expected number of months to be served in prison. They then determined the actual prison terms set by the various parole board members. The number of months an individual served after his legal minimum parole

eligibility date represented the time served at the discretion of the paroling authorities. A comparison of the calculated expected number of months to be served after minimum parole eligibility date with the actual number of months served revealed no support for the premise that parole decision disparity could be attributed to the decision-makers themselves. Rather, the individual members rendered similar decisions and seemed to be guided by a general policy based on "risk" rather than capricious whim.

However, the results of later simulation experiments (Wilkins et al, 1973) appear to contradict the aforementioned conclusion. In the first experiment, research clerks in the correctional field, graduate students in criminology, and United States Board of Parole staff were instructed to formulate parole decisions on the basis of information items presented on index cards. These items were abstracted from a sample of actual case files (N=26). The decision-maker was asked to select information items in their order of importance in the decision to parole the offender in that particular case. After examining five pieces of information, the participant recorded his paroling decision and the ease with which the decision was arrived at. He could stop considering information at any point where he felt he had made a decision which no

additional information item was liable to alter. The experiment demonstrated the disparity of information selection in the decision process and revealed that different items were used by different people to arrive at the same conclusions. The generalizability of these findings is limited by the fact that the participants did not examine the same number of cases and that none of the subjects were actual parole board members.

The second experiment involved the content analysis of an offender's case report and the presentation of information items on slides in a random access projector. The items could therefore be accessed in any sequence. The 41 decision-makers (parole board members, researchers, an academic, a layman, etc.) were divided into six groups and were asked to render a parole decision with reference to one case which was presented to all the groups. A group decision could be given at any time subsequent to the acquisition of four items of information. Only three items (offence, age, and alcohol history) were requested by every group. However, these items were requested at different stages in the process by different groups. There was less overlap than expected among groups in the sets of items selected for the decision. Furthermore, there was no steady increase in decision confidence as the quantity of available information increased.

Overall, the experiments suggest that different decision-makers perform their tasks in different ways. No specific information items were shown to be critical to the decision process. With the exception of age, personal-biographical factors were rarely considered. No particular sequence of information was preferred by decision-makers. Although not conclusive, these research efforts clearly illustrate the complexity of the decision-making process.

Summary. Clearly, the parole selection task is a complex one. It requires the examination of a myriad of factors and the process is channelled by broad, often ambiguous, criteria and objectives. Notwithstanding these considerations, few of the studies surveyed in this review have concluded that age, sex, race, and social class differences influence the decision to grant or deny parole. By comparison, many of these research efforts suggest that legal offender and offence attributes, e.g., seriousness of the current offence and prior official contact with the criminal justice system, play a significant role in the selection process. In fact, sets of legal factors would appear to account for more variation in parole board decision-making than their personal-biographical counterparts.

It should be noted, however, that statistical correlations between extralegal variables and parole decisions need not be interpreted as proof of legal bias. It must be remembered that inmates are free to opt-out of the parole process by failing to request parole consideration. For example, certain minority group members might disproportionately fail to apply for parole, for whatever reasons. Consequently, a significant inverse relationship between race and parole selection could lead to misleading conclusions. To date, little systematic attention has been devoted to this possibility. Waller (1974) suggests that parole effectiveness is an illustion because the worst parole risks neglect to submit parole applications. Nuttall et al (1975) compared the various social and criminal characteristics between representative groups of parole applicants and nonapplicants. Opters out who refused parole review had more frequent contact with courts and penal institutions, a greater number of previous convictions, and more disciplinary infractions during incarceration. Furthermore, they showed signs of greater occupational disadvantage and were characterized by more isolated, insecure backgrounds. Although these studies do not directly evaluate the hypothesis of prejudicial treatment, they suggest innovative ways of addressing the issue.

Finally, the brief review highlights the need for further research which would test the question of the exercise of discretion in parole selection while attempting to unravel the complex factor interrelationships which influence parole board decision-making.

II. Parole Outcome Research

Discretionary potential in the parole process is not restricted to parole selection. If the parolee's behavior in the community is found wanting, discretionary power can be exercised by parole officials and thus result in parole loss and reincarceration. An analysis of the relevant literature will be undertaken presently in an attempt to isolate the salient factors which determine parole outcome. More specifically, the hypothesis that parole officials render prejudicial decisions vis-à-vis certain social segments of the parolee population will be evaluated.

A great deal of time, money, and energy has been expended in trying to predict the probability of parole success/failure. Since the 1920's, a large body of literature has been published with reference to parole outcome. Only a few of the more important or representative studies will be discussed presently.[6]

A Cautionary Note. It should not be forgotten that this body of research has been assembled from studies.

conducted in diverse regions and countries at different points in time. Consequently, the parolees observed have been subjected to varying social conditions as well as variations in parole regulations. Hence, the comparability of the studies may be impaired. Furthermore, the dependent or criterion variable, "recidivism", has been operationalized in diverse forms. Some studies have interpreted "success" as successful completion of the parole period. Others have equated success with lack of reconviction over varying time spans; or lack of reincarceration during the various time periods. This situation further complicates the issue of comparability and an analysis of the available literature must be performed cautiously.

The major portion of parole outcome research has focused on the correlation of a host of offender and offence attributes with parole success/failure, however defined. Although the number of independent variables considered has been voluminous, their selection has been a haphazard one. The choice of factors has been guided primarily by personal intuition and availability of data rather than by explicit theoretical considerations.

Warner's (1923) study of Massachusetts parolees is generally regarded as the first research effort to deal with the prediction of parole outcome. He investigated the impact of 64 factors on a population of 680 inmates

released from the Massachusetts State Reformatory between 1912 and 1920: 300 parole successes, 300 violators, and 80 parole denials. Few of the items were found to be related to parole outcome. In response, Hart (1923) criticized Warner's statistical analysis and suggested that a prediction device could be constructed by scoring parole applicants on the basis of items known to be related to parole outcome.

Burgess (1928) fashioned the first prediction instrument by analyzing the records of 3,000 parolees released from three Illinois penitentiaries. The cases were examined with reference to parole outcome and a number of items of possible significance. One point was allotted each item associated with a parole violation rate lower than the overall failure rate. An applicant's parole success probability was calculated as the sum of these points. Although the instrument was advantageous in terms of simplicity of application, it was criticized for assuming that each item of information contributed equally to parole outcome. Nevertheless, the instrument was widely employed.

In contrast, the Gluecks (1930) constructed a prediction device wherein each item selected was given a weight equal to the percentage of offenders in the sample who possessed this attribute. The items selected were highly associated with parole outcome and the

parolee's score was determined as the sum of these weighted items.

Much of the subsequent parole prediction work was devoted to ascertaining the superiority of the Burgess or Glueck methods. Vold (1931) compared the two scoring instruments on a sample of males paroled in Minnesota between 1922 and 1927. There was little difference between the two methods in terms of their respective predictive power (which, in both cases, was not great). He discovered that criminal record, occupation, work record, and type of current offence were most highly correlated with parole violation.

Tibbits (1931:12), using the Burgess method, concluded that: "those guilty of crimes that most shock society are least likely to violate parole."[7]

Laune (1935) criticized earlier studies for their strict reliance on data obtained from institutional records. He argued that subjective evaluations based on intimate knowledge of an inmate would predict parole success as accurately as objective assessments based on prison record data. Several inmates who knew 150 prospective parolees were asked to estimate parole success probabilities and these were compared to Burgess scores. It was found that the inmate estimates were no better, albeit no worse, than objective assessments.

The initial parole research efforts were also criticized for their neglect of psychiatric and psychological factors. However, an attempt to predict the violation scores for 221 boys paroled from a New York training school by employing psychiatric items and personality attributes failed to demonstrate that psychological-level information predicted parole violation more accurately than that achieved from knowledge of objective factors only (Jenkins et al, 1942).

Glaser made a number of contributions to parole research in the 1950's. His parole studies (1954; 1969) determined that age (e.g., age at first leaving home and age at initial official contact with legal agents), offence type, and prior criminal record were the variables most highly associated with recidivism. Race was not significantly associated with parole failure.

Parole research prior to 1940 concentrated on the search for more effective predictor variables while that conducted in subsequent years began to focus increasingly on methodological considerations (Dean and Duggan, 1968:455). In the 1950's and 1960's, research attention centered, with few exceptions, on the development of more sophisticated prediction instruments. Parole success was investigated with the use of regression techniques and subsequently, configural analysis methods

such as association analysis and predictive attribute analysis were developed (Gottfredson, 1970; Wilkins and McNaughton-Smith, 1970; Babst et al, 1971).[8]

Vichert and Zahnd (1965) employed predictive attribute analysis[9] in order to investigate the outcome of 200 males paroled from federal penitentiaries in Ontario from 1962 to 1964: 100 successes and 100 failures. Previous number of convictions was the attribute most highly associated with successful parole completion. Successful parolees in the high risk group were characterized by: three or more previous convictions; incarceration in medium-security institutions; and supervision by the John Howard Society. Successful parolees in the low risk group were characterized by: two or less previous convictions; a sentence of four years or less; 23 years of age or over; and married.[10]

A study of males (N=143) paroled from Canadian penitentiaries between 1962 and 1964 was able to account for merely 10% of the variation in parole success/failure by relying on standard information items contained in case files. The author contended that the low predictive ability of this offender-focused information could be explained by the fact that loss of freedom is something done to the parolee and not necessarily or wholly caused by him. Consequently,

the limited scope of traditional information gathering and recording restricts predictive ability. For all intents and purposes, the best predictor of loss of parole freedom was past loss of freedom as a result of arrest, conviction or incarceration. As the author concluded:

> "the best guess how the so-called guardians of society will treat this man in the future is based more on how they have treated him in the past than on any other factor."
>
> (McNaughton-Smith, 1976:99)

A more recent investigation of the parole process in the United States, based on 2,500 prisoner data profiles, uncovered the following items which discriminated favourable and unfavourable parole outcomes: prior convictions, prior incarceration, age at first commitment, auto theft offence, history of parole failure, history of drug use, grade 12 education, minimum 6 months employment during the last 2 years in the community, and plans to reside with spouse upon release (Gottfredson et al, 1974). These items were combined to produce a Salient Factor Score providing guidance to parole selection decision-makers. Solomon (1976) re-examined the data using multidimensional contingency table analysis and reduced the original set to four items which best discriminated parole outcome: number of prior convictions, auto theft or not, live with spouse after release or otherwise, and previous parole

or not.

Generally, the factors uncovered by the more recent methodologically sophisticated studies tend to confirm the results of earlier research.

Women and Parole. Given the comparatively small number of women incarcerated and the even smaller number of women released on parole, few empirical investigations have studied parole populations which contained both males and females. Studies of independent samples of female offenders tend to conclude that, while women do not appear to have any advantage in obtaining parole,[11] they are less likely, once paroled, to be returned to prison (Simon, 1975). By and large, the factors significantly related to female parole failure are similar to those found salient for male samples.

Parrott (1967) studied a sample of 99 girls released on parole in Fresno, California, between 1960 and 1963. Parole successes were defined as those girls who received no violation reports or whose parole was not suspended during the three year follow-up period. Parole successes differed from failures in terms of: the employment of fathers, the emotional ties of the father to the parolee, and the self-respect of the family. Family placement of some kind offered girls a better chance to complete parole successfully. Residence

with family was also shown to be highly related to parole success in a study of women paroled from the Detroit House of Corrections (Kikstra, 1967). Furthermore, regular employment was strongly associated with success while prior records, e.g., drug and prostitution offences, were significantly related to failure.

Another study of 246 women released from the Kansas correctional system and followed for five years found that: 1) the lowest violation rates were among women convicted of crimes against the person; 2) parole violations decreased with age; 3) prior criminal record was related to parole violation; 4) parolees without a high school education had higher recidivism rates; and, 5) there existed little difference in violation rates between whites and nonwhites (Rogers and Simmons, 1970).

Molof's (1970) study of female wards paroled in 1963 and 1964 uncovered the commonly-reported age-recidivism relationship. A sample of paroled female wards (N=2,001) was utilized as a construction sample to develop an instrument to predict recidivism within 15 months of release. The instrument was validated on a sample of females paroled in 1965. Age at release to parole proved the best predictor variable although the instrument, as a whole, demonstrated little predictive ability.

Pauze (1972), using stepwise regression techniques, investigated the outcomes of women paroled from the Iowa Women's Reformatory. The traditional variables, found in previous studies, could explain only 18% of the variation in the dependent variable. They were similar to those found to be significant for male samples, especially in terms of involvement in a criminal career. Prior criminal record and type of offender were the best predictors. Interestingly, the number of disciplinary reports received while imprisoned and the type of parole job were also related significantly to parole outcome. None of the treatment variables were significantly associated with the criterion variable.

Finally, an investigation was undertaken of long-term parole outcomes (8 years) among 660 women released from the California Institution for Women in 1960 and 1961 (Spencer and Berecochea, 1972). During the study period, the percentage of women reincarcerated for new criminal offences was consistently lower than that for men. Nevertheless, after the second or third year on parole, the female return rate for technical violations was consistently higher than that of males. Female parolees returned for parole regulation violations had a history of narcotics use and prior commitments, average or below average educational and intelligence scores, and minority-group membership. However, the significance

of minority-group membership could be due to differentials in narcotics usage rather than legal agent discrimination.[12]

Parole Outcome and Time Served. Particular attention has been paid to the association between time served in prison and parole outcome as paroling authorities have been concerned with the release of inmates at an optimum time during their sentences. This concern stems from the belief that every inmate reaches a point during incarceration when his chances of rehabilitation, should he be released, are at a maximum. Furthermore, optimum release can avoid the process of "prisonization".[13] One could hypothesize, therefore, that the longer the period of incarceration, the greater the probability of recidivism. Unfortunately, the research completed to date has not uncovered any consistent relationship between length of imprisonment and parole outcome.

Babst et al (1972) examined male burglars paroled in 48 American states in 1968. The study did not reveal any consistent relationship between the number of months served and parole outcome.

Jarman et al (1972) studied the parole outcome-time served correlation for samples of robbers and burglars paroled in California in 1965. For each offence category, males who had served less than the median time

were matched with men who had served more than the median time. Parole outcome was noted after 6 months release, 1 year, and 2 years. Although robbers who had served less time performed significantly better on parole, the relationship was inconclusive as the two matched groups differed on twelve other, possible explanatory, variables. However, burglars who had served less time had more favourable outcomes and the two groups differed on only three alternative factors.

Gottfredson et al (1973) investigated parole outcome using data gathered from nearly all of the state adult parole agencies in the United States. Age at admission, prison record, and type of commitment offence were controlled for. Persons with no prior non-prison history had better parole outcomes in all cases than those with prior non-prison sentences. The introduction of a statistical correction for age had a negligible effect on the final study results. The proportion of persons returned to prison as parole violators was calculated for each offence category according to each amount of time served category (pentiles). In general, parole success decreased as time served increased. However, both armed robbery and narcotics parolees who had served longer periods of incarceration were more successful than those who had been imprisoned for shorter periods. Although offenders who served the

longest terms in prison performed less favourably on parole than those who served the shortest terms, the differences were neither consistent nor large. The study was unable to determine whether the differences observed were due to the impact of prison experiences as opposed to the exercise of discretion by parole officials.

Babst et al (1976) assessed the relative impact of different lengths of imprisonment on male narcotic law violators paroled in 1968 and 1969 in the United States. When time served was examined in relation to parole outcome alone, it was observed that the more months served, the higher the parole/success rate (percentage still on parole two years later). A base expectancy scale was constructed on the 1968 sample of parolees (N=929) and validated on the 1969 sample (N=985). The beta coefficients calculated were used to calculate offender risk ratings. When offender type was considered (risk rating), length of incarceration bore no consistent relationship to parole outcome.

Finally, a recent study (Gottfredson et al, 1977) investigated the time served-parole outcome association for a random sample of males and females paroled in Ohio between 1965 and 1972. Since offenders incarcerated for different periods of time might not be comparable parole risks, predictive attribute analysis was used to determine differential risk categories. The relation

between time served and parole success/failure was assessed separately for each sample subgroup. The study failed to uncover a large positive correlation between time served and parole success. In general, the success rates decreased or remained fairly constant with increased time served in prison.

Treatment Efforts and Parole Outcome. Numerous research efforts have endeavored to measure the impact of diverse treatment-oriented programs on recidivism (individual and/or group counselling, vocational and educational training, psychotherapy, milieu therapy, etc.). The results of such efforts lead only to a pessimistic general conclusion. A comprehensive analysis of 231 treatment studies (Martinson, 1974:25) concluded:

> "With few and isolated exceptions, the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism."

In fact, the author maintained that offender and offence attributes were more powerful predictors of recidivism than treatment factors.

> "For they found that the personal characteristics of offenders - first-offender status, or age, or type of offence - were more important than the form of treatment in determining future recidivism. An offender with a "favourable" prognosis will do better than one without, it seems, no matter how you distribute "good" or "bad", "enlightened"

or "regressive" treatments among them."
(1974:42)

However, Palmer (1975) challenged the validity of these assertions. He argued that several studies reviewed by Martinson showed at least partial success. In fact, of the 82 studies mentioned in "What Works?", 39 (48%) were characterized as having yielded positive or partly positive results. Thus, Palmer disputed the claim that only a handful of studies provided favourable results. Furthermore, he maintained that Martinson's standard of success was too exacting. Practical and methodological realities obviated the possibility that all valid studies of a given treatment method would yield almost exclusively positive results. Therefore, Martinson's contention that no "sure" way of reducing recidivism had been uncovered in connection with any of the modes of treatment was founded on an unrealistic frame of reference. Palmer maintained that it would not be justified to abandon treatment efforts simply because of their obvious limitations. Rather, he argued that the problem of identifying what works is more complicated than originally expected. His analysis of the literature noted the existence of interaction effects between treatment program effectiveness and factors such as offender type (e.g., middle-risk), treatment setting, and treatment agent. He concluded

that research must increasingly ask:

> "Which methods work best for which types of offenders, and under what conditions or in what types of setting?"
>
> (1975:150)

In reply, Martinson (1976) conceded that Palmer's article was a strong defence of California tradition or "recidivism only" research. However, he also characterized it as a stubborn refusal to leap into the future to the epoch of "social planning" research. Crime rate (combined with cost) will supplant recidivism as the dependent variable. Isolated treatment programs which work for certain types of offenders in certain settings given certain types of treatment agent will have little effect on the gross rate of recidivism (i.e., the overall crime rate). Thus, while Martinson did not completely disavow the accuracy of Palmer's conclusions, he dismissed them as largely irrelevant and retrograde with reference to the future search for knowledge. Notwithstanding Martinson's position, it is clear (given Palmer's arguments) that any attempts to isolate the impact of specific treatment factors will hinge upon the development of more sophisticated and intricate research instruments.

Parole Outcome and Postrelease Data. Certain critics of parole prediction research have charged that

the approach utilized has been static. They counter that parole is a dynamic process involving change over time (Buikwisen and Hoekstra, 1974:64). Rather than concentrating on prerelease factors, attention sould be directed to postrelease factors which might have an important bearing on parole outcome.

An investigation of 423 men released from Canadian federal prisons in Ontario utilized stepwise-regression techniques in order to compare recidivism rates (defined as rearrest) for parolees and dischargees (Waller, 1974). A basic prediction equation was constructed taking into account age at release and penal record. It provided a reliable, statistically significant, but extremely inefficient prediction device. In an attempt to improve prediction, information on postrelease variables (fighting, drinking, and undesirable associates) was also considered. Unfortunately, the postrelease data only marginally improved predictive efficiency and the difficulties encountered in data collection rendered the widespread usage of such information questionable.

Parole Outcome and Intensive Supervision. Certain investigative efforts (conducted principally in California) have been devoted to scrutinizing the impact of systematic changes in parole caseload size (and, it it argued, concomitant changes in intensity of

supervision) on parole outcome.[14] The results of these efforts have been, by and large, negative.

The most extensive caseload size research was undertaken by the California Department of Corrections between 1953 and 1964. The research experiment involved systematic variation of parole caseload size in the Special Intensive Parole Unit (SIPU). In the first two phases of the experiment, SIPU I and II, parolees were randomly assigned to small (15-man and 30-man, respectively) and large (90-man) caseloads. After 3 months (SIPU I) and 6 months (SIPU II), the experimental cases were transferred to regular caseloads. No significant differences were found with reference to parole failure (California Department of Corrections, 1956; 1958). During the fourth phase, caseload size and supervision time were again varied. In addition, low-maturity parolees were matched with external-approach parole officers while high-maturity parolees were assigned to internal-approach agents. The results were not significant (Havel, 1963). Only the third phase reported positive findings. During a one-year period of supervision, smaller experimental caseloads (35-man) performed significantly better than the larger control caseloads (72-man). Best results in terms of parole outcome were obtained for medium-risk rather than high- or low-risk parolees - as determined by base expectancy

scores (Havel and Sulka, 1962). However, an important qualification must be noted. Martinson (1974:47) divided the parole population of SIPU III into those receiving supervision in the northern and southern parts of the state. It was discovered that the improvement in the experimentals' success rate was occurring primarily in northern California where agents were adhering to a policy of returning both experimental and control violators to prison at relatively high rates. Improvement in performance was occurring only when accompanied by a "realistic" threat of imposition of sanctions. Thus, the impact of intensive supervision might have been due to deterrent rather than rehabilitative efforts.

The San Francisco Project (Lohman et al, 1967b) randomly assigned parolees to intensive (25-man), ideal (50-man), regular (85-man), and minimum caseloads. Parolees under minimum supervision merely wrote their officers on a monthly basis. After several years of follow-up, no significant differences were found between caseloads in terms of recidivism rates. Intensive supervision caseloads reported higher numbers of technical violations, however.

The Community Treatment Program (Warren, 1970) represents, to date, the most ambitious attempt to identify the effects of intensive supervision. Convicted youths in California were randomly assigned to

experimental and control groups: the latter were incarcerated and subsequently released on parole; the former were given probation, released to the community, and assigned to small caseloads (8 to 12-man). In addition, members of the experimental group were assessed according to their "interpersonal maturity classification level" and classified into nine delinquent subtypes - each subtype receiving a distinct form of therapy. Success was defined as favourable discharge from the California Youth Authority. Failure was equated with unfavourable discharge, revocation, or recommitment. The author concluded that, with the exception of one maturity level, the experimentals performed significantly better than the controls.

Unfortunately, recent re-evaluations of the project's performance have disputed the validity of the above-mentioned assertion. Martinson (1974:44) re-examined the data and noted that the experimental subjects committed more violations, but their supervisors followed a more lenient revocation policy. The controls had a higher failure rate because they were revoked more often for similar violations. Thus, what appeared to be a "treatment" effect proved to be a "policy" effect.

Lerman (1975) also completed a thorough reanalysis of the Community Treatment Project. He discovered that certain key features of the original design had been

altered following project implementation. In particular, temporary detention (i.e., parole suspension) became a widespread practice among parole agents supervising the experimental youths. In fact, the experimentals were suspended more often than the controls and spent, on the average, more days in confinement than exposed to intensive treatment (1975:39). As a result, short-term confinement, rather than intensive treatment, became the primary program element and the treatment program was transformed into one characterized by social control.

Moreover, Lerman failed to find any significant differential program impact on the deviant behavior of experimentals and controls. Rather, the project appeared to have changed parole officer conduct. This change was evidenced by the greater number of suspensions, but fewer revocations, for the experimentals than the controls. The ultimate, albeit unintended, consequences of the project were the dissemination of temporary detention throughout the California parole system and a corresponding increase in the discretionary power exercised by parole agents.

One is led to conclude from the studies reviewed above that more intensive parole supervision does not reduce parole failure and it may contribute to an increase in technical violation rates. In fact, interviews conducted with successful parolees revealed that

they considered the assistance of family and friends more influential in terms of accounting for their success than that provided by parole officers, regardless of the intensity of supervision. Surprisingly, the parole officers themselves concurred with the ex-parolees' assessments (Lohman et al, 1967a).

Nevertheless, the intensive supervision studies are indicative of an important shift in thinking with reference to the parole process. Earlier parole outcome research concentrated on the causal impact of various offender- and offence-related attributes. However, certain correctional observers have begun to argue that, because the parolee is engaged in an ongoing series of interactions with parole authorities, e.g., his parole officer, certain features of the parole system per se may significantly influence the likelihood of parole success or failure.

For example, Takagi and Robinson (1969a) hypothesized that the decision to revoke or continue parole is not a constant. Their analysis of parole case histories revealed that the decision varied significantly between parole officers, between officers of different status, and between different parole agencies.

Irwin (1970) focused on the importance of the parolee-agent relationship as a crucial determinant of parole outcome. He described the pressures which both

structure and threaten this relationship - characterized as a precarious equilibrium in a fragile system. The parole system is innately flawed in that:

> "the parole social system has brought into close contact, in an agent-client relationship, two people who represent different social worlds - one, the parole agency, which is unduly influenced at the formal level by conservative segments of society; and the other, a deviant subsociety."
>
> (1970:157)

Consequently, both the parolee and the officer must make certain adjustments in order to cope with this inherently disrupting factor. The nature and form of these adjustments are influenced by the parole system.

The parolee's adjustments are determined by the formal expectations which derive from the parole conditions and informal expectations which flow from the parole agent. He soon learns that it is extremely difficult to live strictly within the limits set by the parole regulations. As he becomes familiar with his agent's expectations, he strives to present a performance which falls within the latter's tolerance limits.

The officer's adjustments are also shaped by formal and informal demands. He must attempt to comply with the formal demands of the system - that he simultaneously control and treat parolees. Moreover, he must respond to the informal expectations of his agency, e.g., his supervisor. Because he finds it impossible

to enforce parole regulations strictly and produce low violation rates, the officer tends to adopt and enforce a more liberal interpretation of the parole rules. Out of these mutual adjustments, shaped by organizational pressures, a precarious parole-agent relationship arises. Should this relationship be disrupted, however, the officer maintains a readiness to exercise his discretion in such a manner as to move to a stricter enforcement of the parole conditions. In such a situation the parolee will be held accountable for behavior which he can no longer keep hidden and which may have even been formerly condoned by the officer.

O'Leary (1974) described the parole agency as a social system supporting a specific "decision culture" which defines the "correct" way of interpreting and responding to situations. Each officer is socialized into this culture and deals with his clients on the basis of norms which may differ significantly from official policies.

These studies suggest that parole outcome may be determined by factors other than parolee behaviour. Moreover, as one begins to focus on the impact of the decision-maker on parole outcome and his role in the parole system, the issue of the exercise of discretion becomes a central one.

Summary. The amount of work devoted to parole outcome prediction has been voluminous. Unfortunately, the results must be termed, in one word, "disappointing". Although a host of factors have been considered in relation to parole success or failure, few have been found to be significantly and consistently related to parole outcome.

With reference to recidivism research in general, Hood and Sparks (1970:180) concluded that:

> "Broadly speaking, most researchers have found that an offender's chances of recidivism are greater, the more previous convictions he has, the shorter the time since his last conviction, the younger he is, and the younger he was when first convicted; men have higher reconviction rates than women, and offenders against property generally have higher reconviction rates than those committing offences of violence."

With few exceptions, similar conclusions can be drawn with reference to parole outcome research. Overall, it is legally relevant offender and offence characteristics which prove to be best predictors, e.g., criminal history and previous parole failure. However, these factors do not appear to possess a high degree of predictive power.

Two principal reasons can be advanced in an attempt to comprehend the present state of knowledge with reference to parole outcome research. Parole researchers have concentrated disproportionately on methodological

considerations while ignoring theoretical issues.

First, there has been an overemphasis on the development of complex prediction instruments. In many instances, the attribute relationships uncovered have been neglected; mentioned only in passing; or utilized simply to ascertain the reliability and validity of the scoring method. Too much attention has been paid the issue of which prediction device is superior. In fact, a comparison of multiple regression and configural analysis techniques demonstrated that both methods produce approximately equal results (Babst et al, 1968). While the search for more productive statistical techniques continues, a point of diminishing return seems to have been reached. Less sophisticated prediction instruments may prove more valuable in practice because the nature of the available data may not satisfy the assumptions required by more complex statistical analyses.

Second, there has been too much abstracted empiricism and too little theory. By and large, parole outcome research has not been guided by any explicit theoretical framework. Nor have many attempts been made to link research results with a theoretical perspective. Given the methodological attention lavished on parole research, surprisingly little effort has been made to interpret the correlations uncovered or

to unravel the interrelationships between the many factors put to empirical test. Consequently, the feast of research has produced a famine of substantial results.

More specifically, what evidence does the literature offer with reference to the discrimination hypothesis? Briefly, there is little evidence which could be termed supportive of the thesis that racial and social class differences influence parole success or failure, although few studies have dealt directly with socioeconomic status. On the other hand, significant age- and sex-parole outcome associations have been reported with some frequency. That is, older parolees and females have higher parole success rates, however defined. These findings might be explained by arguing that parole officers render more prejudicial decisions against youthful parolees who lack the power to resist parole officer action and that parole agents exhibit a greater tolerance with respect to female parolee deviance and a greater reluctance to terminate parole. However, such interpretations cannot be termed conclusive until such time as age, sex, other plausible explanatory variables, and parole outcome have been considered simultaneously.

Conclusion

What conclusions can be drawn from the preceding review of the parole literature? Is the discrimination thesis applicable to the parole process: selection and outcome?

The literature reviewed clearly demonstrates the importance of offence-related attributes and criminal histories in influencing parole decision-making. Prior criminal involvement (i.e., conviction record, commitment record, and parole history) is repeatedly reported as significantly related to the criterion variable whether it is defined as parole selection or selection. However, conflicting evidence prevents a clear-cut assessment of the impact of extralegal variables on the exercise of discretion in the parole process. Although the analysis uncovered little evidence which indicates that racial and social class disparities significantly influence parole decision-making, it should be noted that few studies have explicitly considered the impact of socioeconomic status. Moreover, a number of research efforts have reported statistically significant age- and sex-parole disposition associations, particularly with reference to parole success or failure. Although the major portion of the evidence considered in this literature review is

not supportive of the thesis that discretion is exercised prejudicially by parole authorities, a conclusive confirmation or refutation of the discrimination hypothesis awaits further research.

Past studies have relied on various correlational techniques. In many cases, however, the correlations have been crude in the sense that little attempt has been made to determine whether the impact of these factors is direct or mediated by other, e.g. intervening, variables. A more complete causal analysis is needed in order to chart properly the exercise of parole discretion. The analysis should proceed through a systematic investigation of the numerous variable interrelationships and the dissection of independent-dependent variable associations into direct and indirect components. It is proposed to undertake such an analysis through an empirical examination of the parole process in Canada.

FOOTNOTES

1. Board members are authorized to render final decisions with reference to parole applications and terminations. Although parole officers gather much of the information on which these decisions are based and supervise successful applicants, they may only recommend action which requires Board approval prior to implementation.

2. In focusing on offence severity, Board members are partly concerned with the retributive function of punishment. No inmate is seriously considered for parole until he has served "enough" time (i.e., has been punished sufficiently) depending upon the nature of the crime committed and the circumstances surrounding the offence.

3. Automatic Interaction Detection isolates the independent variables most strongly related to the dependent variable by splitting the sample into a series of subgroups. At each stage a group is divided into two on the basis of the variable which explains most variance. This process continues until groups are produced which are either too small for further subdivision or until predictive power is not sufficiently increased by further subdivision.

4. The association helps to account for the seriousness of crime-severity of punishment correlation in Scott's (1974) study. Presumably, the more serious the offence, the longer the sentence imposed by the court. One should then expect a significant association between sentence length and severity of punishment (defined as the number of months incarcerated).

5. Females were excluded from the analysis.

6. Reviews and analyses of parole prediction studies have been completed by Mannheim and Wilkins (1955), Schuessler (1968), Dean and Duggan (1968), Simon (1971), and Inciardi (1973).

7. Stanton (1969) compared the overall delinquency and new conviction rates of samples of paroled murderers (first and second degree) and nonmurderers in New York State. In terms of both criteria, murderers committed significantly fewer violations. Age differences were not controlled, however.

8. Regression techniques were criticized as "naive" because of their assumption of linearity between variables. Configural analysis techniques were developed in order to cope with the possibility that relationships among variables are not constant. That is, in heterogeneous samples, the associations between predictor and criterion attributes may vary from one subsample to another (Grygier, 1970). Given a sample of parolees, for example, the relationship between marital status and parole outcome might vary for subsamples of males and females.

9. The technique proceeds by successive hierarchical divisions of sampled individuals into groups defined by the possession or lack of a specific attribute. The attribute chosen for each division is the one most strongly associated with the dependent variable.

10. Further discussion of this study can be found in Grygier et al (1971).

11. It should be noted that Scott's (1974) study concluded that females were incarcerated for significantly shorter periods of time than were males prior to parole release.

12. Some evidence for this assertion can be found in a base expenctancy study of parole violation of 719 females paroled in California between 1955 and 1958. History of heroin use proved to be the best predictor of parole failure (Gottfredson et al, 1962).

13. This concept, introduced by Clemmer (1940), contends that, in the absence of certain insulating influences, the longer an individual is institutionalized, the more likely he is to acquire the attributes and values characteristic of a prison culture. The acquisition of these values increases the probability of continued criminal involvement upon release by increasing the difficulty of social reintegration.

14. Reviews of intensive supervision studies can be found in Martinson (1974) and Adams (1974). It should be noted, however, that the latter's claims of cost-benefit advantages with reference to caseload size experiments should not be equated with treatment effects in terms of recidivism shrinkage. Increased efficiency does not necessarily equal increased effectiveness.

CHAPTER III

BIAS IN THE PAROLE SELECTION PROCESS: AN EMPIRICAL EXAMINATION

Notwithstanding official rhetoric which depicts legal decisions as essentially objective and rule-governed, the exercise of discretion by legal representatives is fundamental to criminal justice administration. Students of the justice process have been particularly concerned with the distributive dimension of justice, i.e., the extent to which decision-making approaches the ideal of equal treatment under law. This concern stems from the widespread belief that certain social segments are the victims of discrimination by agents of the legal system. Much debate has focused on the contention that "justice", as it has been and is being administered, is not free of bias. All too often, this assertion has been accorded factual status without benefit of empirical corroboration. However, a number of attempts have been made to test the discrimination hypothesis by isolating and examining the impact of certain extralegal or personal-biographical attributes on the decisions rendered by legal agents in the various sectors of the criminal justice network.

As revealed in the first chapter, research evidence has not been supportive, in general, of the tenet of prejudicial decision-making. Although statistically significant relationships have been reported between extralegal factors and legal decisions, the introduction of statistical controls for plausible rival hypotheses has reduced these associations substantially or caused them to disappear. In particular, factors which indicate the seriousness, length, and consistency of an offender's history of lawbreaking have proven to be better predictors of official disposition than the personal-biographical attributes commonly considered (age, sex, race, and social class). In addition, the review of the relevant literature has demonstrated the complexity of the decision-making process and the need for sophisticated methodological analyses.

Virtually all of the research concerned with the question of official bias has focused on police and judicial dispositions. Little systematic attention has been devoted to the exercise of discretion in the parole process. This neglect is surprising given the potential for prejudicial decision-making which exists in the parole system. The decision to grant or deny parole is almost entirely a matter of administrative discretion. Parole decisions are characterized by low visibility and parole boards are offered little guidance

other than broad and often vague statutory criteria. Moreover, these decisions are frequently formulated after a cursory review of an applicant's file and/or a brief personal interview (Clark and Rudenstine, 1974).

A review of American state parole boards (O'Leary and Nuffield, 1972) revealed that their activities were not commonly constrained by due process considerations. Most boards did not inform the inmate directly of their decisions; did not allow inmates to be represented by counsel or to present witnesses in their behalf; or did not record the reasons for their decisions. As a result, board decisions were not susceptible, by and large, to review.

Given the aforementioned considerations, the potential for discrimination is great. Whether or not the discretionary power possessed by parole boards results in disparity of treatment or bias is the central question addressed in this study of parole selection in Canada.

Parole Selection in Canada

Prior to 1899, release from Canadian penal institutions, other than by normal expiration of sentence, required a clemency exercise. This unconditional release was obtainable under the Royal Prerogative of

Mercy powers vested in the Governor General. In 1899, the proclamation of the Ticket of Leave Act enabled the Governor General, on the advice of a cabinet member, to grant any convict a license to be at large in Canada. Although clemency considerations continuted to influence early administration of the Act, the offender's possible reform gradually became an important factor as a consequence of the growth of after-care agency participation in the release process. The concepts of reform and rehabilitation were formalized in law with the enactment of the Parole Act in 1958 which elaborated eligibility criteria and supervision conditions (Canada, 1974).

Parole refers to the early release of an inmate into the community where the unexpired portion of his sentence is served under conditions broadly defined in the parole agreement.[1] The National Parole Board operates as an independent statutory body not answerable for its decisions to any government department or minister. The legislation outlining the responsibilities of the Board entrusts to its members considerable freedom in the rendering of decisions with reference to parole applications. The legal mandate is an extremely broad one. Section 6 of the Parole Act (1972:5) specifies that the Board has, "exclusive jurisdiction and absolute discretion to grant, refuse to grant, or revoke parole". Furthermore, the legal ctiteria which the Board utilizes

to arrive at its decisions permit a great deal of variation. Section 10(1)(a) of the Parole Act (1972:7) states that the Board may:

> "(a) grant parole to an inmate subject to any terms or conditions it considers desirable, if the Board considers that
> (i) in the case of a grant of parole other than day parole, the inmate has derived the maximum benefit of imprisonment,
> (ii) the reform and rehabilitation of the inmate will be aided by the grant of parole, and
> (iii) the release of the inmate on parole would not constitute an undue risk to society."

Provincial inmates[2] become eligible for parole after having served one-third of their sentence. With some important exceptions,[3] federal inmates can be considered for full parole after having completed one-third of their sentences or a fixed number of years, whichever is the lesser.[4] Those federal inmates given sentences of two years to twenty-seven months duration must serve a minimum of nine months prior to eligibility. Although the National Parole Board is empowered to release an inmate at any stage during his period of incarceration, this provision is rarely used other than to bring the release date forward a few months.

The parole selection process is initiated by the inmate who completes and submits a written application form four or five months prior to his eligibility date. The form requires that he state reasons for his application; outline his release plans; summarize

briefly his employment experience; and give names/ addresses of individuals and organizations willing to assist or employ him if paroled. Upon receipt of this application, the National Parole Service inaugurates the process of gathering information which will be forwarded to the Board for their deliberation prior to parole decision.

A number of documents are contained in a parole file. An institutional report, completed by the applicant's classification officer, describes the subject's institutional programs; incorporates the views of his work and cell range officers; and concludes with an institutional recommendation for parole approval or refusal. A complete criminal record in the form of a Fingerprint Series record prepared by the R.C.M.P., is also included in the file. In addition, a police report, containing an official version of the crime which resulted in the present term of incarceration, is prepared by the arresting officer, section, detachment, or force. This version describes the circumstances surrounding the offence, the presence of accomplices, if any, the attitude and cooperation of the suspect after arrest, and the effect of the crime on the victim. The reputations of both the victim and offender are also indicated. Finally, the expected reaction of the community should parole be granted is noted. Any additional

information which might prove valuable to the Board such as the degree of violence surrounding the offence, the role of the offender as instigator, or organized crime involvement may also be included.

The information collected by the parole officer per se is presented in a four-part Cumulative Summary report. Part one - the basic investigation report - consists of: a summary of the official version of the current offence; the applicant's criminal history; the views of the police, court, and other legal agencies with reference to the proposed parole; a sketch of the subject's personal history (relationship with parents and siblings, educational record, behaviour prior to arrest, etc.); employment history; personality assessment by psychologist or psychiatrist on admission to prison; previous parole experience, if any; other relevant information; and, representations made to the Board by the subject (a summary of his application) and by others supporting or contesting the parole request (usually in the form of letters).

Every inmate, provincial or federal, who submits a parole application is interviewed, on at least one occasion, by a parole officer. Much of the data gathered during the interview(s) are included in the second part of the Cumulative Summary report. This parole interview report contains: the inmate's version of the

current offence; the inmate's version of his present institutional experience (prison activities and conduct); his parole release plans (destination, accommodation, employment, funds available on release); a summary of the institutional report; and, the parole officer's interim assessment (his impressions of the applicant formed during the interview(s)).

In the majority of cases,[5] a community investigation is conducted in order to assess the feasibility of the proposed release plans. Friends, relatives, and prospective employers cited in the application form are contacted in an attempt to ascertain their willingness to assist the subject if paroled and gauge the amount of positive or negative influence and control they may exert on the parolee. In short, an effort is made to estimate the parole "climate". Interview summaries and conclusions are presented in part three - the community investigation report.

Part four - appraisal and recommendation - outlines the parole officer's conclusions as to the feasibility of the parole request, the quality of the parole situation in the community, and the parole applicant's likelihood of success or failure. These impressions are derived from the information presented in the earlier sections of the report and other file documents. Finally, the officer indicates his recommendation for

parole grant or denial.

All of the abovementioned information is forwarded to the Board[6] and individual cases are randomly assigned to two members who must both vote approval in order for parole to be granted. The majority of cases require but two votes. However, additional votes become necessary because of the serious nature of the offence[7] or because the two original members disagreed. Interestingly, if the original members both cast negative votes parole will be denied regardless of the number of votes required. If they cast opposing votes, or both support parole, then the case is transmitted to the additional members for consideration.

Decisions pertaining to applications submitted by provincial inmates are rendered solely on the basis of information contained in the respective parole files and are communicated in written form. Federal inmates are granted a parole hearing.[8] Board members (a minimum of two) visit federal institutions regularly and interview parole applicants. The subject is questioned, usually in the presence of his classification and parole officers, with reference to his past/present activities and proposed release plans. Upon completion, the Board members deliberate (in the absence of the inmate) and normally arrive at a decision. This decision is communicated orally to the inmate unless the case is of

a type requiring more than two voting members or a disagreement exists among the hearing members. If parole is denied, the subject is eligible to reapply at some later date. If parole is granted, the subject is released on his eligibility date or when administrative release arrangements have been completed. The parole selection process culminates with the signing of the parole certificate (see Appendix A).

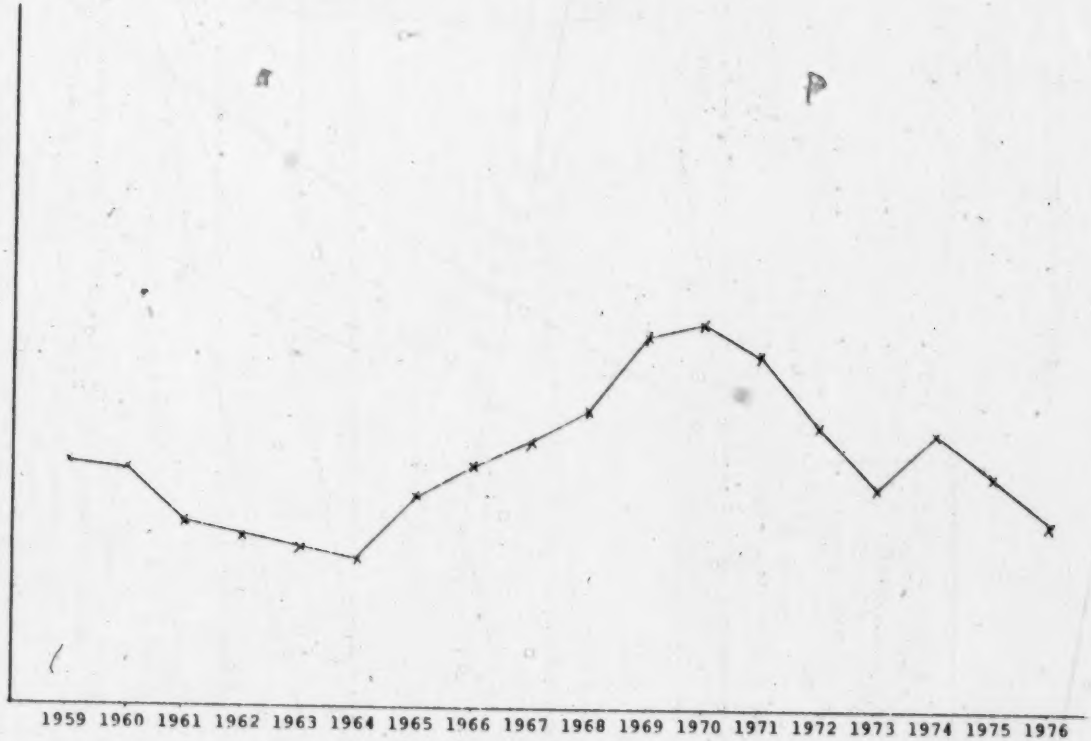
Data and Methods

Sample Selection and Data Collection. Figure 1 summarizes important selection trends from the Board's inception through to 1976. Further details may be found in Appendix B. Three general trends can be identified: a comparatively small, but steady, decrease in the percentage of paroles granted from 1959 (42%) to 1963 (26%); a dramatic increase in the percentage paroled from 1963 to a peak in 1970 (66%); and, a considerable, if not quite consistent decrease thereafter. The present analysis is based on data collected from the parole files of inmates considered by the Board from January 1, 1972, through December 31, 1972.[9]

For sampling purposes, alphabetical listings of paroles granted and paroles denied in 1972 were obtained

FIGURE 1

PERCENTAGE OF APPLICANTS GRANTED PAROLE FROM FEDERAL AND PROVINCIAL INSTITUTIONS IN CANADA, 1959-1976



Source: National Parole Service, Ottawa.

from National Parole Service headquarters in Ottawa. During the twelve-month period for which data were collected, the Board considered 6,682 applications. Of this total, 3,803 resulted in decisions to grant parole and 2,897 were parole denials.[10]

An attempt was made to select a sample which would be unbiased while achieving maximum precision at minimum cost.[11] A stratified, systematic sampling design was used to construct the parole selection sample. Initially, the population of interest was stratified by sex.[12] Given the small number of female applicants, a decision was made to include all of the female cases in the sample. Male parole applications were chosen by systematic sampling.[13] As alphabetical lists were available, this mode of selection proved to be the most practical approximation to random sampling. There was no evidence of trend or periodicity in the population lists. In addition, the male subsamples were chosen in such a manner that the ratio of paroles granted to paroles denied in the total sample would equal that in the population.[14]

In short, the parole selection sample was composed of:

(a) all decisions rendered with reference to parole requests by females in 1972 (N=156);

(b) a systematic subsample of paroles granted to male

inmates in 1972 (N=250); and,

(c) a systematic subsample of paroles denied to male inmates in 1972 (N=175).

A total sample of 581 parole decisions was drawn originally and data were collected for 541 cases.[15]

Data abstracted from the parole file of each applicant included the following: age, sex, race, socio-economic status, education, drug usage, alcohol consumption problem, employment record, employment status upon arrest, current offence type, aggregate sentence, number of previous convictions, number of previous penitentiaries, previous parole, institution, parole officer recommendation, and parole board decision.

Method of Analysis. Tabular or bivariate analysis carries with it a number of difficulties: the possibility of interminable analysis, the need for often wastefully large samples, ambiguous causal inferences, and inefficient search procedures for important explanatory variables (Hirschi and Selvin, 1967). Given these considerations, multivariate analysis was utilized to isolate the key explanatory variables in the parole selection process and estimate their impact on board decision-making. The simultaneous statistical control of a number of independent variables permits an assessment of their respective direct effects on the dependent

variable. Correlation and multiple regression techniques were employed to analyze the data.

Moreover, an attempt was made to arrive at an interpretation of the parole selection process which was causal rather than merely correlational. In the "real" world, many events are interrelated and multiply determined. Therefore, appoximations of reality necessitate the simultaneous consideration of variable interrelationships. The essential idea of path analysis or causal model building involves the construction of a simplified model of reality in the sense that, out of all possible causal nominees only a few variables are selected for systematic investigation. Using the results of past research and current theory, the model is written as a set of structural equations that represent the causal processes assumed to be operating among the variables under consideration. The structural equations, in turn, lead to parameter estimation procedures and the evaluation of the model. The outcome of this process is either corroboration or reformulation of the model.[16]

Such a technique offers a number of benefits. In the first place, it makes assumptions explicit and forces discussion to be, at a minimum, internally consistent. Second, it renders possible a calculation of how a change in any one variable in the system is

associated with changes in the values of the other variables. Finally, it permits the dissection of empirically observed correlations into components that are due to different processes (direct, indirect, and/or spurious).[17]

Analysis

Consideration of the twenty-two variables, presented in an assumed logical-temporal sequence, in Table 1 ties the analysis together. These variables follow from the earlier discussion of conflict theory and the literature reviews. They consist primarily of extralegal and legal offender and offence attributes. As used in the present analysis, legal attributes refer to those variables which document past or present official contact with the criminal justice process. Extralegal variables refer to personal-biographical attributes which are not indicators of past or present criminal involvement (in the official sense).

The term "extralegal" is commonly used to describe attributes which refer to the perceived characteristics of an offender that are legally irrelevant to the decisions rendered by officials in various sectors of the criminal jsutice system. However, the concept of legal relevance/irrelevance is an ambiguous one. With

Table 1

Variable List

Notation	Variable	Scale
X_1	sex	male (1) female (2)
X_2	age	number equals scale
X_3	ethnic background	white (1) indian & métis (2)
X_4	education	no formal education (0) 8 years or less (1) some high school (2) high school graduate (3) some university (4) university graduate (5)
X_5	marital status	married or common-law (1) single, separated, divorced, or widowed (2)
X_6	socioeconomic status	number equals scale
X_7	problem drinker	yes (1) no (2)
X_8	drug user	yes (1) no (2)
X_9	previous convictions	number equals scale
X_{10}	previous penitentiaries	number equals scale
X_{11}	previous parole	yes (1) no (2)
X_{12}	employment history	sustained employment record and employed at time of arrest (1) sustained employment record and unemployed at time of arrest (2) sporadic employment record and employed at time of arrest (3) sporadic employment record and unemployed at time of arrest (4)
X_{13}	current offence type A	other (0) escape or unlawfully at large (1)

Notation	Variable	Scale	
X_{14}	current offence type B	other	(0)
		sexual offence	(1)
X_{15}	current offence type C	other	(0)
		crime vs. person	(1)
X_{16}	current offence type D	other	(0)
		crime vs. property	(1)
X_{17}	current offence type E	other	(0)
		drug offence	(1)
X_{18}	current offence type F	other	(0)
		parole revocation or forfeiture	(1)
X_{19}	aggregate sentence	number equals scale	
X_{20}	institution	federal (1) provincial	(2)
X_{21}	parole officer recommendation	parole denied	(1)
		parole granted	(2)
X_{22}	parole board decision	parole denied	(1)
		parole granted	(2)

reference to the question of discriminatory decision-making, legally relevant attributes are distinguished from irrelevant ones primarily on the basis of whether they refer to ascribed or achieved characteristics. For example, age, sex, and race can be termed legally irrelevant attributes because they are ascribed traits for which the offender cannot be held accountable. On the other hand, employment history can be considered a legally relevant attribute in the sense that it represents an achieved characteristic to which personal responsibility can be attached. The distinction is an important one with reference to parole selection in that parole decisions formulated on the basis of legally irrelevant variables may be interpreted as biased or prejudiced. Those interpreted on the basis of legally relevant variables minimize that risk. Unfortunately, this distinction cannot always be made without difficulty. Problems of categorization arise with reference to variables such as problem drinker and socioeconomic status which contain elements of ascription and achievement. To date, attempts to evaluate the discrimination hypothesis have ignored this distinction because they have focused almost exclusively on the impact of age, sex, race, and social class on official dispositions. Although the relevance/irrelevance distinction is noted in the present analysis, all of the personal-biographical

traits are termed extralegal. However, particular attention will be paid to the influence of age, sex, race, and social class in the model. Their associations with board decisions will be carefully considered in order to evaluate possible prejudicial decision-making in the parole selection process.[18]

The extralegal or personal-biographical attributes considered in the analysis are: sex (X_1), age (X_2), race (X_3), educational achievement (X_4), marital status (X_5), socioeconomic status (X_6), problem drinker (X_7), drug user (X_8), and employment history (X_{12}). The racial distinction is between persons of (1) white and (2) indian/métis background.[19] Educational level and marital status codings were influenced by the unreliability of the pertinent parole file information for certain cases and the susceptibility to change of these attributes during incarceration.[20] Social class membership was measured by means of a socioeconomic index for occupation (Blishen and McRoberts, 1976). The index was constructed by using 1971 census data to scale occupations listed in the Canadian classification manual of occupations (Statistics Canada, 1971). The index rating or score, which is positively related to social class, was applied to the occupations of the parole applicants. Each applicant's occupation was operationally defined as most frequent job or job of longest

duration.

The first six personal-biographical attributes (X_1 to X_6) are considered exogenous variables and are treated as intercorrelated rather than causally connected.[21]

The extralegal offender attribute, problem drinker (X_7), is specified as causally prior to drug user (X_8) largely on temporal grounds in that alcohol consumption is assumed to precede drug experimentation. It can be argued that drug usage antedates problem drinking or the two variables may be viewed as merely correlated. Regardless of the temporal ordering, however, subsequent analysis will reveal that drug usage is significantly related, in a statistical sense, to parole selection while the problem drinker factor is not.[22]

Problem drinker and drug user are specified as causally prior to the legal offender and offence attributes. The legal offender variables, which indicate criminal involvement/commitment, are: number of previous convictions (X_9), number of previous federal penitentiaries (X_{10}), and previous parole (X_{11}).[23] Previous convictions is logically and temporally prior to previous penitentiaries and parole while previous penitentiaries precedes previous parole.

The legal offender attributes are assumed to be causally prior to employment history in that they

seriously hamper the possibility of developing a sustained employment record. Emplcyment history (X_{12}) was measured by means of an ordinal level index composed of past employment record (sustained vs. sporadic) and employment status at time of arrest (employed vs. unemployed).[24]

Employment history (X_{12}) is specified as causally prior to current offence (X_{13} to X_{18}). A set of dummy variable offence types was created by treating each category of the current offence nominal variable as a separate variable and assigning arbitrary scores for all cases depending on their presence or absence in each of the categories (Nie et al, 1975:373). The offence types are: escape or unlawfully at large (X_{13}),[25] sexual offence (X_{14}), crimes versus persons (X_{15}),[26] crimes versus property (X_{16}), drug offences (X_{17}), and parole violation offences (X_{18}). An attempt is made to gauge the impact of offence type on parole selection probability.[27]

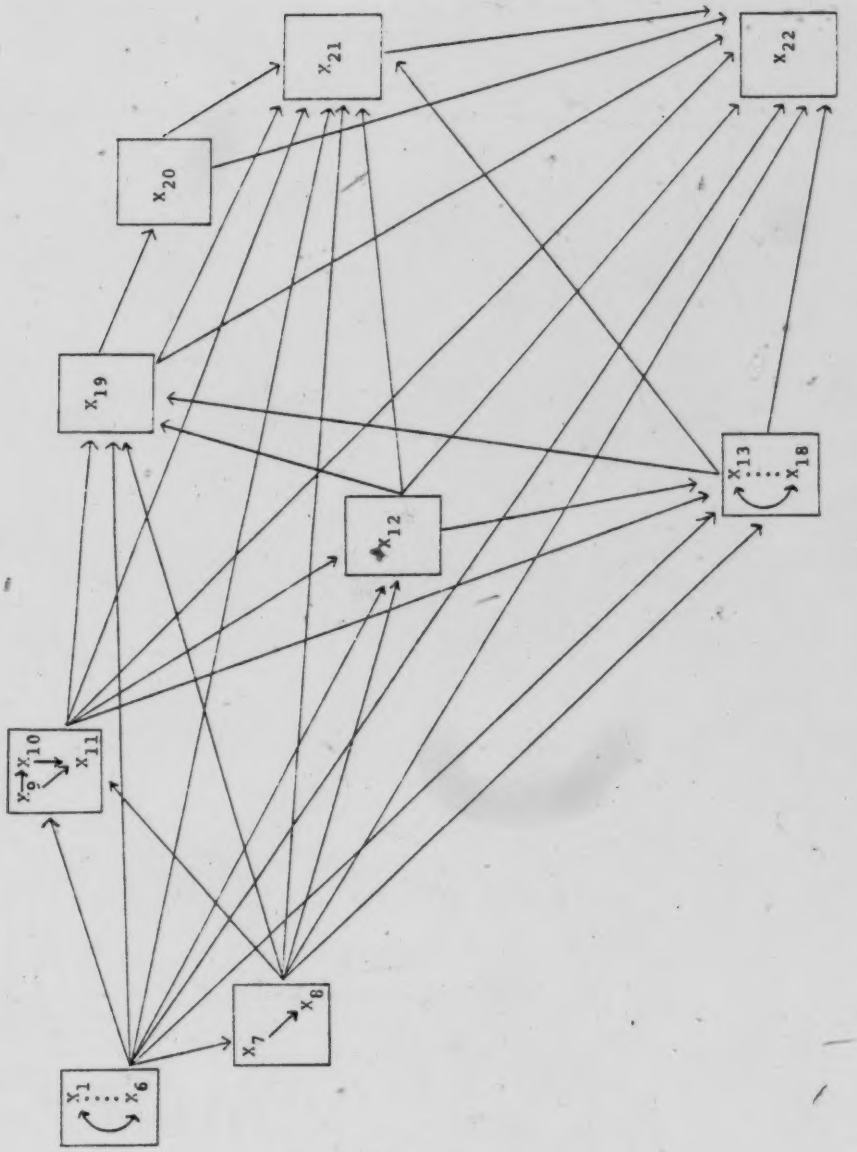
Current offence and aggregate sentence can be termed legal offence attributes. The latter can be taken as an indication of offence severity although it is also a measure of judicial disposition. Current offence obviously precedes aggregate sentence.

Aggregate sentence (X_{19}) is causally prior to institution where incarcerated (X_{20}). Institutional

jurisdiction (federal vs. provincial) is completely determined by the length of sentence imposed - with the two-year rule acting as cutting point. Although causal connections are specified between all of the aforementioned variables (X_1 to X_{19}), only aggregate sentence is causally linked to institution. However, the latter represents an organizational variable and, as such, is independently linked to parole officer recommendation and board decision.

Parole officer recommendation (X_{21}) represents an evaluation of the applicant's prospects for success on parole. As indicated earlier, the officer's role in the selection process culminates in a recommendation vis-à-vis parole. Recommendations were coded as: (1) parole denied and (2) parole granted. The coding was repeated for the dependent variable, parole board decision (X_{22}). The former is causally prior to the latter. All of the preceding attributes (X_1 to X_{20}) and (X_1 to X_{21}) are assumed to be causally linked to officer recommendation and board decision, respectively.

The parole selection model is presented in Figure 2.[28] Certain variables are grouped into blocks in order to permit diagrammatic representation. Within the blocks, arrows indicate intercorrelation and straight arrows denote causal direction. Residual or error terms are omitted for purposes of clarity.



PIGURE 2

GENERAL MODEL OF THE PAROLE SELECTION PROCESS

Path analysis techniques are utilized to evaluate the hypothesis of prejudicial parole selection. Ordinary least squares regression is used to compute path coefficients for successive reduced-form equations. That is, coefficients are derived initially for the equation containing only exogenous variables and subsequently for equations which add intervening variables in sequence from cause to effect. Direct and indirect effects within the model are "decomposed" in order to further clarify the causal linkages (Alwin and Hauser, 1975).[29]

Level of Measurement. Path analysis assumes interval-level measurement. However, causal models of any reasonable degree of complexity will generally contain mixtures of interval, ordinal, and nominal scales - as is the case in the present analysis. Violation of the equal-interval assumption carries with it the risk that ordinal or nominal categories will not correspond to the true intervals. Consequently, their utilization may produce an irregular transformation of the true scale of the attribute so measured and, ultimately, a distortion of the underlying relationships between variables.

Can the causal model approach be used with ordinal or nominal level independent variables? Fortunately, a

growing body of research would appear to confirm the robustness of regression analysis (Bohrnstedt and Carter, 1971) and the feasibility of ordinal data usage (Boyle, 1970; Lyons, 1971). Moreover, the use of nominal level independent variables would also appear to be legitimate (Macnaughton-Smith, 1976). Comparisons of analyses conducted with nominal level data and those performed with higher-order variables produced very similar results (Gottfredson and Ballard, 1965; Simon, 1971). Multiple category nominal variables can be handled by the creation of dummy variables. Dichotomous variables may be scored as ones or zeros and inserted into regression programs (Namboodiri et al, 1975).

Difficulties arise in the application of ordinary least squares techniques to data sets wherein the dependent variable is a dichotomous or polytomous nominal variable. Regression analysis assumes that the dependent variable has an unrestricted range. A substantial violation of this assumption occurs in the case of dichotomous dependent variables since only two values are possible. In linear regression, the predicted value of the dependent variable is an estimate of the population mean of the dependent variable corresponding to a given value of the independent variable. As such it is a probability estimate and lies between zero and one (Macnaughton-Smith, 1976). Regression with a

dichotomous dependent variable carries the possibility that the expected value of the dependent variable will fall outside the zero to one range.[30]

In addition, a dichotomous dependent variable violates the regression assumption of homoscedasticity, i.e., equal conditional variances for all joint values of the independent variables. As a result, slope estimates will be unbiased but inefficient. Thus, the use of the F-distribution to test the statistical significance of the slopes is, strictly speaking, inappropriate (Gillespie, 1977). Nevertheless, such tests can be used if the distribution of the dependent variable is not extremely skewed - as is the case in the present sample.

Notwithstanding these problems, the technique offers compensating advantages when compared to alternative approaches, e.g., log-linear techniques. First, dummy dependent variable regression can accommodate discrete and continuous independent variables. Second, it permits the calculation of direct and indirect effects. Third, it yields estimates of "fundamental parameters" - coefficients that correspond to the causal structure that generated the observed relationships between the variables (Gillespie, 1977).

Given the abovementioned advantages, dummy dependent-variable regression is employed in the present

analysis. Although tests of statistical significance are calculated, they are not utilized as criteria for treating certain paths as negligible. Violation of the homoscedasticity assumption and the problem of multicollinearity render such a practice suspect (Heise, 1969; 1975; Nie et al 1975). However, given that the decomposed effect components are, with a few exceptions, quite small, their significance levels are used to identify the paths which should be discussed more extensively in the analysis.

Analysis

Results. The discussion which follows focuses primarily on the path coefficients[31] derived from the successive reduced-form regression equations for parole board decision (Table 2) and parole officer recommendation (Table 3), and the subsequent decomposition of these coefficients into direct/indirect effect components[32] (Tables 4 and 5). Beta coefficients and effects for the other selection model variables, as well as the zero-order correlation matrix, can be found in Appendix C.

An examination of the calculations performed with reference to the parole selection model (Figure 2) exposes a number of interesting relationships:

TABLE 2

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

(PAROLE BOARD DECISION)

Predetermined Variable	Equation and Dependent Variable										
	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}	X_{22}
X_1	.05	.04	.07	.08	.07	.07	.09	.10	.12	.13*	.01
X_2	-.10*	-.10	-.14**	-.08	-.06	-.07	-.10	-.12*	-.14*	-.13*	-.09**
X_3	-.11*	-.10*	-.13*	-.13*	-.13*	-.13**	-.12*	-.11*	-.10*	-.09	.01
X_4	-.04	-.04	-.01	.01	.01	.01	.02	.01	.01	.02	.06*
X_5	-.09	-.09	-.09	-.09	-.09	-.10	-.07	-.06	-.07	-.06	.00
X_6	.04	.03	.03	.00	.00	-.01	-.05	-.05	-.05	-.05	-.03
X_7		.04	.07	.07	.07	.06	.07	.07	.07	.07	.02
X_8			.23***	.22***	.21***	.21***	.20***	.23***	.23***	.23***	.02
X_9				-.16***	-.13*	-.11	-.07	-.04	-.05	-.04	.04
X_{10}					-.08	-.05	-.03	-.01	-.03	-.04	-.01
X_{11}						.09	.09	.05	.05	.07	-.03
X_{12}							.17**	.17**	.18**	.19***	.05
X_{13}								-.10	-.11	-.11	-.09
X_{14}								.00	-.01	.00	-.05
X_{15}								-.08	-.11	-.10	-.12
X_{16}								-.16	-.14	-.12	-.17*
X_{17}								.04	.05	.08	-.11*
X_{18}								-.16	-.16	.16	-.17*
X_{19}									.13*	.05	.04
X_{20}										-.14*	-.05
X_{21}											.87***

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE 3

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS (PAROLE OFFICER RECOMMENDATION)

Predetermined Variables	Equation and Dependent Variable									
	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}	X_{21}
X_1	.07	.06	.09	.10*	.09	.08	.10*	.11*	.13*	.13**
X_2	-.06	-.06	-.10	-.02	.00	-.01	-.03	-.04	-.05	-.05
X_3	-.13**	-.12*	-.14**	-.15**	-.15**	-.15**	-.14**	-.13*	-.12*	-.12*
X_4	-.10	-.11	-.08	-.05	-.05	-.05	-.04	-.05	-.05	-.05
X_5	-.10*	-.10	-.09	-.10*	-.10*	-.11*	-.08	-.08	-.08	-.08
X_6	.07	.07	.06	.03	.02	.02	-.02	-.03	-.03	-.03
X_7		.04	.06	.07	.07	.06	.07	.06	.06	.06
Y_8			.22***	.20***	.20***	.19***	.18***	.24***	.23***	.24***
X_9				-.22***	-.19***	-.16**	-.12*	-.10	-.10	-.10
X_{10}					-.09	-.05	-.03	-.02	-.02	-.03
X_{11}						.12*	.12*	.10	.10	.12
X_{12}							.15**	.14**	.15**	.15**
X_{13}								-.02	-.03	-.02
Y_{14}								.05	.05	.05
X_{15}								.03	.02	.03
X_{16}								.04	.04	.06
Y_{17}								.18	.18	.21*
X_{18}								.02	.01	.02
Y_{19}									.07	.01
X_{20}										-.11

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE 4

PAROLE SELECTION: DECOMPOSITION OF EFFECTS
(PAROLE BOARD DECISION)

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via										Direct Effect
			X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13} to X_{18}	X_{19}	X_{20}	X_{21}	X_{22}	
X_{22}	X_1	.05	.01	-.03	.00	.01	.00	-.02	-.01	-.02	-.01	.12	--	.01
	X_2	.10	.00	.04	-.06	-.02	.01	.03	.02	.02	-.01	-.04	--	-.09
	X_3	-.11	-.01	.02	.00	.00	.00	-.01	.00	-.01	-.01	-.09	--	.01
	X_4	-.04	.00	-.03	-.01	.00	.00	-.01	.00	.00	-.01	-.04	--	.06
	X_5	-.09	.00	-.01	.00	.00	.01	-.03	.00	.01	-.01	-.07	--	.00
	X_6	.04	.00	.00	.03	.01	.00	.04	.00	.00	.01	-.03	--	-.03
	X_7	.04	--	-.03	.00	.00	.00	-.01	.00	.00	.00	.06	--	.02
	X_8	.23	--	--	.01	.00	.01	.01	-.04	.01	.00	.21	--	.02
	X_9	-.16	--	--	--	-.03	-.02	-.04	-.03	.01	.00	-.09	--	.04
	X_{10}	-.08	--	--	--	--	.03	-.02	-.02	.01	.02	-.03	--	-.01
	X_{11}	.09	--	--	--	--	--	.00	.05	-.01	-.02	.10	--	-.03
	X_{12}	.17	--	--	--	--	--	--	.00	-.01	-.01	.13	--	.05
	X_{13}	-.10	--	--	--	--	--	--	--	.02	.00	-.02	--	-.09
	X_{14}	.00	--	--	--	--	--	--	--	.02	-.01	.05	--	-.05
	X_{15}	-.08	--	--	--	--	--	--	--	.03	-.02	.03	--	-.12
	X_{16}	-.16	--	--	--	--	--	--	--	-.01	-.02	.05	--	-.17
	X_{17}	.04	--	--	--	--	--	--	--	-.01	-.03	.18	--	-.11
	X_{18}	-.16	--	--	--	--	--	--	--	.00	.00	.01	--	-.17
	X_{19}	.13	--	--	--	--	--	--	--	--	.08	.01	--	.04
	X_{20}	-.14	--	--	--	--	--	--	--	--	--	-.10	--	-.05
	X_{21}	.87	--	--	--	--	--	--	--	--	--	--	--	.87

TABLE 5

PAROLE SELECTION: DECOMPOSITION OF EFFECTS
(PAROLE OFFICER RECOMMENDATION)

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via									Direct Effect
			X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	to X_{13} X_{18}	X_{19}	X_{20}	
X_{21}	X_1	.07	.01	-.03	-.01	.01	.01	-.02	-.01	-.02	.00	.13
	X_2	-.06	.00	.04	-.08	-.02	.01	.02	.01	.01	.00	-.05
	X_3	-.13	-.01	.02	.01	.00	.00	-.01	-.01	-.01	.00	-.12
	X_4	-.10	.01	-.03	-.03	.00	.00	-.01	.01	.00	.00	-.05
	X_5	-.10	.00	-.01	.01	.00	.01	-.03	.00	.00	.00	-.08
	X_6	.07	.00	.01	.03	.01	.00	.04	.01	.00	.00	-.03
	X_7	.04	--	-.02	-.01	.00	.01	-.01	.01	.00	.00	.06
	X_8	.22	--	--	.02	.00	.01	.01	-.06	.01	-.01	.24
	X_9	-.22	--	--	--	-.03	-.03	-.04	-.02	.00	.00	-.10
	X_{10}	-.09	--	--	--	--	-.04	-.02	-.01	.00	.01	-.03
	X_{11}	.12	--	--	--	--	--	.00	.02	.00	-.02	.12
	X_{12}	.15	--	--	--	--	--	--	.01	-.01	.00	.15
	X_{13}	-.02	--	--	--	--	--	--	--	.01	-.01	-.02
	X_{14}	.05	--	--	--	--	--	--	--	.00	.00	.05
	X_{15}	.03	--	--	--	--	--	--	--	.01	-.01	.03
	X_{16}	.04	--	--	--	--	--	--	--	.00	-.02	.06
	X_{17}	.18	--	--	--	--	--	--	--	.00	-.03	.21
	X_{18}	.02	--	--	--	--	--	--	--	.01	-.01	.02
	X_{19}	.07	--	--	--	--	--	--	--	--	.06	.01
	X_{20}	-.11	--	--	--	--	--	--	--	--	--	-.11

Officer Recommendation (X_{21}). Table 4 immediately reveals the striking direct impact of parole officer recommendation (.87) on the decision to grant or deny parole.[33] This factor alone accounts for slightly more than three-quarters of the variation in the final disposition of parole applications. It indicates a high degree of consensus which is not altogether surprising in view of the board's dependence on the information amassed by officers in the field.

Given this strong effect, a number of important points should be noted. First, particular attention must be paid to the crucial position which the parole officer occupies in the selection process. Second, the inclusion of the officer recommendation attribute in the regression equation dramatically reduces the unexplained variation with reference to board decision. Consequently, a number of variables - age, education, and three current offence types - are reported as statistically significant although their magnitude has not been altered appreciably. With the exception of age, none of these attributes had been reported as significant in prior regression equations with board decision as the dependent variable (Table 2). Therefore, statistical control for parole officer recommendation and the concomitant reduction of residual variation permits the isolation of small, but real, effects on parole selection.

Third, any interpretation of the impact of model variables other than officer recommendation must be tempered by their comparatively small effects vis-à-vis the latter. In fact, many of the decomposed effects are so small that they can be considered negligible.[34]

Institution (X_{20}). Table 4 further reveals that both board members and parole officers are more favourably disposed toward applications submitted by inmates incarcerated in federal institutions. However, most of the total effect of X_{20} (-.14) is transmitted indirectly through officer recommendation (-.10).[35]

Aggregate Sentence (X_{19}). Applicants with longer sentences are more likely to be selected for parole. Of the total effect of X_{19} (.13), 61% (.08 ÷ .13 = .61) is due to the jurisdiction of the institution housing the inmate (federal vs. provincial) and 30% is due directly to board members. The impact of aggregate sentence on officer assessments can be disregarded (Table 5). Although the direct effect of X_{19} is very small, it suggests that the parole board acts in such a manner as to attenuate lengthy judicial dispositions.

Table 2 suggests that aggregate sentence and institution are not significantly related to board decision. However, such a conclusion is misleading

because collinearity masks the contribution of these factors to parole selection. A collinearity problem exists because the correlation between X_{19} and X_{20} (-.62) is much higher than their individual correlations with board decision (.04 and -.04, respectively). Accurate estimation of these structural coefficients would require an extremely large sample given the need for correlation estimates with little error (Heise, 1975: 187). When coefficients were estimated for two regression equations which contained all of the model variables, but omitted only X_{19} in one equation and only X_{20} in the other, both aggregate sentence and institution were shown to be related statistically to board decision at the .01 significance level - with the latter attaining the higher level of significance. When this procedure was repeated with officer recommendation as the dependent variable, institution was related statistically at the .05 level, but sentence length did not attain statistical significance. Thus, it can be maintained that both aggregate sentence and institution significantly influence the parole selection process (at least in the statistical sense).

Current Offence (X_{13} to X_{18}). The nature of the offence which resulted in the present term of imprisonment does influence the parole selection process, albeit

that impact is complex. All of the dummy-variable offence groupings are more likely to provoke a negative response from the board than the reference category - a collection of miscellaneous infractions. However, the direct effects of the offence types on board decision vary in magnitude. In addition, parole officers and board members evaluate offence types differently. As opposed to board decision, the direct effects of current offence type on officer recommendation are minor, with notable exception of drug violations (Table 5).

Virtually all of the escape offence (X_{13}) effect operates directly on board decision (-.09). This suggests that the board is conscious of and acts in such a manner as to reinforce institutional concerns with security. The total effect of sex offence (X_{14}) on board decision is nil. This noninfluence is produced by small, opposing effects - the direct effect of X_{14} on X_{22} and its indirect effect via X_{21} - which negate each other.

Crimes against persons (X_{15}), crimes against property (X_{16}), drug offences (X_{17}), and parole infractions (X_{18}) exert the largest direct effects on board dispositions - although only the last three types are statistically significant. The impact of X_{14} and X_{15} is, by and large, direct. In fact, the direct effects are larger in magnitude than their respective total effect

components due to the small suppressor effects of the intervening variables.

Drug (X_{17}) and parole (X_{18}) violations present the most interesting results. As should be expected, the board reacts negatively to an application submitted by a recent parole violator (-.17). It may feel that the subject has failed to benefit from the opportunities afforded by his recent parole and thus question the sincerity of the present application. Surprisingly, parole officer assessments do not appear to be affected by the applicant's status as a parole failure.

An initial examination might lead to the conclusion that the total effect of drug offence on board decision is negligible (.04). However, further investigation of the decomposed effects in Table 4 reveals a striking difference of opinion between officers and board members. The latter react negatively to drug violations as indicated by the negative direct effect of X_{17} on X_{22} (-.11). This impact is offset by an equally large, positive indirect effect via X_{21} (.18). That is, parole officers evaluate drug transgressions positively. The strong direct effect of X_{17} on officer assessment (.21) can be further noted in Table 5. This lack of consensus requires further elaboration (see pages 129-130).

Employment Index (X_{12}). As indicated by the index, a history of sustained employment and the possession of a job at the time of arrest enhance the probability of parole selection. Most of the effect of this factor is transmitted indirectly through officer recommendation (.13). In fact, X_{12} and X_{21} are related statistically at the .01 level of significance (Table 3). The direct impact of the index on board decision is considerably weaker (.05), albeit in the same direction. Differential opportunity to assess employment information may account, in part, for the disparity between the above-mentioned effect components. The parole interview allows the officer to question the applicant at length. In addition, other individuals such as former employers can be contacted in order to corroborate information. The board member, on the other hand, must rely on summaries prepared by officers and, in federal cases, on a few questions put to the applicant during a comparatively brief parole hearing. As a result, the officer is in a better position to gauge all facets of the employment situation.[36]

Previous Parole (X_{11}). The total effect of this variable on board decision is small (.09) and its direct effect is negligible. A very small indirect effect operates through current offence type (.05). This effect

is largely exercised via the parole violation category (Table C.13). Obviously, a parole must be granted before it can be violated.

The largest effect of X_{11} in Table 4 is an indirect one through X_{21} (.10). That is, applicants with no previous parole experience are more likely to receive favourable parole officer recommendations. A partial explanation for this tendency is suggested by the decomposed effects of X_{11} (Table C.9). The strong direct effects of the number of previous convictions (-.25) and penitentiaries (-.34) on previous parole imply that lack of prior parole experience may be equated with absence of prior criminal involvement. Consequently, officers may view applicants without a parole history as substantially better risks.

Furthermore, the influence of previous parole on officer evaluation helps to elaborate the apparent discrepancy between board members and officers with reference to parole violations (X_{18}). Board members react negatively to applications submitted by recent parole failures. However, parole officers react negatively to applications submitted by inmates who have been paroled previously regardless of whether these paroles were terminated successfully or unsuccessfully. Thus, officers would appear to react more punitively than board members when confronted with evidence of

prior parole experience.

Previous Conviction (X_9), Previous Penitentiaries (X_{10}). Given their relatively high intercorrelation (.43), these attributes are grouped for discussion. Although the probability of parole selection decreases as the number of previous penitentiary terms served increases, the total effect of X_{10} on X_{22} is small (-.08). Moreover, the direct and indirect effect components are minute. The total influence of the number of previous convictions on board decision is larger (-.16). As was the case with X_{10}, the various effects are very small, albeit widely dispersed. The largest fraction of the total effect is channeled through X_{21} (-.09). Applicants with few or no previous convictions stand a greater chance of receiving favourable parole recommendations.

Drug User (X_8). The direct effect of X_8 on X_{22} is negligible. The indirect effect of X_8 via X_{21} (.21) accounts for virtually all of the impact of this attribute on board decision (Table 4). Table 3 reveals that the association between X_8 and X_{21} is statistically significant at the .001 level. In other words, drug user status significantly reduces the probability of a positive officer recommendation. These results stand in

sharp contrast to those reported with reference to drug offence (X_{17}).

Although this divergence cannot be reconciled completely, plausible explanations can be ventured. As noted above, parcle officers react negatively to drug usage, but positively to drug violations. Both of these attributes may represent "lifestyle" indicators with very real consequences for parole officers. That is, a parolee with a drug habit will create a number of problems with reference to parole supervision. Drug dependence may make it difficult for the parolee to maintain employment, family responsibilities, and contact with his supervisor. Moreover, such an individual may seek illegitimate means of acquiring the funds needed to support his habit. At best, a drug user would be considered a very questionable parole risk. However, a drug offender need not be a drug user. Narcotic possession and trafficking may be motivated solely by a desire for profit. Such an applicant would be viewed as a much better parole risk. Therefore, favourable officer recommendations with reference to drug attributes may be largely restricted to those candidates whose drug activities can be interpreted as a business venture or, at minimum, as not serious enough to be termed a way of life.

An attempt must also be made to reconcile the contrasting reactions of board members and parole officers to drug use (X_8) and drug offence (X_{17}). With reference to the X_{17}, officers react positively while the board reacts negatively. This suggests that both groups may hold differing views with reference to the drug issue. Officers, being closer in age to drug offenders than board members, might feel that narcotic offences are not "real" crimes and that violators are not "real" criminals - hence their positive reaction. However, it should be noted that the parole board, although it reacts negatively to drug transgressions, is not influenced directly by drug usage per se. This result implies another plausible explanation. In 1972, board members may have evolved an anti-drug "policy" which was manifested in a greater tendency on their part to deny applications submitted by inmates convicted of drug infractions. To the extent that parole officers write their reports and offer recommendations in such a manner as to anticipate board decisions, the board-officer differential in the assessment of drug cases could represent a "policy lag" on the part of the latter. Parole officers must be sensitive to changes in board actions because these often represent general policies which are largely informal and thus would not be communicated officially in the form of a written

directive. If this hypothesis is correct, one would expect to find a gradual convergence over time, i.e., a growing number of negative officer recommendations in drug cases.

Problem Drinker (X_7). Board decisions are unaffected by this factor - other than a very small indirect effect via X_{21} (.06). Applicants with alcohol problems are less likely to receive officer assessments which indicate that parole should be granted.

Socioeconomic Status (X_6). Table 4 discloses that the impact of this variable, as measured by the Blishen scale, is negligible. The largest effect component is a minute, indirect one via X_{12} (.04) which indicates that social class position is positively related to a sustained work record and employment at time of apprehension. Caution should be exercised in interpreting the effects of socioeconomic status because the statistical variation of this factor is somewhat restricted and confined primarily to the lower end of the class continuum.[37] In fact, conflict theorists might argue that this limited statistical variation argues for discrimination at some earlier stage in the criminal justice process. Although this contention has merit, it should be noted that the direct effect of X_6 on aggregate

sentence is negligible (Table C.14).

Marital Status (X_5). The total effect of X_5 is small (-.09) and is transmitted chiefly via X_{21} (-.07). Marital status influences parole selection in the sense that parole officers will tend to support applications submitted by candidates who are married or have formed common-law unions rather than those who are single, separated, divorced, or widowed.

Education (X_4). Notwithstanding a negligible total effect, Table 4 reveals that X_4 exerts a small, but statistically significant, direct effect on board decision (.06). Board readiness to grant parole increases with the applicant's level of educational achievement.

Ethnicity (X_3). Ethnicity exerts no direct influence on board decision. The largest impact is an indirect one via X_{21} (-.09). That is, parole officers are more likely to support those applications put forward by caucasians. In fact, ethnicity exerts one of the larger direct effects on officer recommendation (Table 5) and the two variables are related at the .05 significance level.

Age (X_2). The probability of parole selection varies inversely with the age of the candidate. Table 4 reveals a statistically significant direct effect between age and board decision (-.09). Board members may view younger applicants as immature or as simply having made one mistake which is unlikely to be repeated. A small indirect effect is exercised by age through X_9 (.06) in that the number of previous convictions increases with age.

Sex (X_1). Sex exerts no direct influence on board decision. However, a considerable indirect effect is transmitted via X_{21} (.12). Parole officers are more likely to recommend females for parole. The direct effect of sex on officer recommendation is .13 (Table 5). Moreover, Table 3 indicates that the sex-officer association is statistically significant at the .01 level.

In sum, the data analysis reveals that, by and large, the direct effects of the selection model attributes on parole board decision-making are small and do not attain statistical significance.

With few exceptions, the direct effects of the extralegal or personal-biographical variables on board deliberations are negligible. Only age and education

are related to board dispositions in a statistically significant manner. In direct contradiction to the conflict proposition, however, younger applicants are more likely to be granted parole. The education-board decision association may be viewed as supportive of the bias thesis in the sense that it occurs in predicted direction, but only to the extent that educational level can be considered a reliable operational definition of social class position.

Socioeconomic status exerts no direct impact on board decision-making. As indicated earlier, however, the somewhat restricted statistical variation of this factor may limit its potential explanatory power. Its negligible influence may also be attributable to the operational definition employed - an index based on the inmate's occupation prior to apprehension. Another indicator, such as father's occupation, might have revealed a significant relationship. Nevertheless, it should be noted that a recent study of parole selection in Illinois (Heinz et al, 1976) also failed to uncover a statistically significant correlation between the nature of an inmate's occupation and the decision to grant or deny parole.

It could be argued that social class may influence the exercise of discretion in earlier stages of the criminal justice process notwithstanding the fact that

its direct impact on board deliberations can be disregarded. This possibility is worthy of consideration although, in the present analysis, socioeconomic status exerts no direct influence on judicial dispositions (Table C.14).

The direct effects of the legal attributes on board decision-making are, with the exception of certain current offence categories, also small and not statistically significant. However, conviction for crimes vs. property, drug violations, or parole transgressions significantly reduces the probability of parole selection.

The analysis indicates that aggregate sentence and the jurisdiction of the institution where the applicant is incarcerated also influence board decision-making. Inmates with lengthy sentences and those housed in federal prisons are more likely to be granted parole. As noted earlier, the contribution of these variables is masked by a collinearity problem.

The aggregate sentence-board decision association suggests that, in some cases, the board reduces sentencing disparity by abbreviating lengthy terms of incarceration. However, it may be that inmates with long sentences are more likely to receive parole simply because their cases come up for consideration more often.

A number of plausible interpretations can be offered with reference to the institution-board decision

association. Many provincial inmates serve short sentences (six months or less). Given that one-third of sentence must be expiated prior to parole eligibility and that sentences are also reduced by statutory and earned remission, the actual time period to be served in such cases may not permit the processing of parole requests. Consequently, the inmates may neglect to submit parole applications or be discouraged from doing so by parole officers. Thus, a high percentage of good provincial parole risks will never be considered by the board. By comparison, nearly all of the best federal parole risks will submit applications while the worst federal risks will not request board consideration (having realistically assessed their chances) or be discouraged from doing so by penitentiary and parole personnel. As a result, the proportional distribution of "good" and "poor" candidates in provincial and federal jurisdictions results in a higher proportion of federal inmates being released on parole.

The institution effect also suggests that organizational factors may influence parole selection. With reference to provincial cases, board decisions are formulated solely on the basis of information contained in the files assembled by parole officers. Board decisions in federal cases are rendered after a review of the files and personal encounters with the candidates.

As revealed in the analysis, this organizational feature would appear to enhance the probability of parole release for federal inmates.

Parole officer recommendation exerts the most striking direct effect on board deliberations. There exists an extremely high degree of consensus between officer evaluations and board decisions. A number of plausible explanations can be advanced in an attempt to account for this strong association. On the one hand, this relationship suggests that parole officers are adept at "knowing what the board wants to hear". That is, they write reports and offer recommendations which tend to coincide with anticipated board decisions. However, there are a number of factors which restrict the ability of officers to "second-guess" parole board members. Parole files are assigned randomly and the identity of the voting members is not revealed prior to the submission of the parole files. Moreover, board policies are usually informal and are unlikely to be communicated officially to parole agents. As a result, officers rely on previous board decisions and the possibility of a "policy lag" always exists. On the other hand, it is also quite probable that, with reference to certain items of information, board members tend to accept and "follow" officer assessments. As

indicated earlier, board members depend, to a large extent, on the information assembled and transmitted by parole officers. In addition, the latter are in a better position to evaluate certain kinds of information, generally of a intricate nature, which require that the applicant be interviewed at length or that corroboration be obtained from sources other than the inmate. It is quite likely that the officer recommendation-board decision correlation derives from these two processes, simultaneously.[38] Given this very strong correlation, a discussion on the variables which influence officer assessments is essential.

With reference to extralegal attributes, sex, ethnicity, drug use, and employment index are related to officer assessments in a statistically significant manner. As should be expected, employment stability and nonuse of drugs enhance the probability of positive recommendations. Females are more likely to receive favourable officer recommendations. This finding contradicts the conflict prediction unless it is interpreted in such a manner as to suggest that, with reference to females, their relative powerlessness in comparison to males results in decision-making which mitigates, rather than aggravates, the severity of legal sanctions.

White applicants are more likely to receive positive officer recommendations than indian or métis candidates.

This relationship is statistically significant at the .05 level and supports the discrimination hypothesis. Further attempts were made to analyze the race-parole officer association. Possible disparities in prior criminal involvement or gravity of current offence were examined. No statistically significant differences were found between whites and indian/métis with reference to aggregate sentence, current offence type,[39] or the number of previous convictions, penitentiaries, and paroles.

There is evidence which indicates that parole officers differentiate between racial groups in selecting and weighing information when evaluating parole. Two stepwise multiple regressions of the selection model variables on officer recommendation were run, one each for white and indian/métis applicants. The items of information selected for whites by officers in the three initial steps were (in order): employment index, previous parole, and drug usage. Those selected for natives were: previous parole, institution where incarcerated, and alcohol problem. Thus, this differential selection of information would appear to produce racial inequalitis with reference to officer recommendations.

It should be noted that the legal attribute direct effects on parole officer assessments are larger in

magnitude than the corresponding direct effects on board decision. Nevertheless, only drug offence is related in a statistically significant manner. Applicants convicted of a drug infraction are more likely to be recommended for parole. As indicated previously, officers react positively to drug offenders but negatively toward drug users. Moreover, officers and board members differ in terms of their evaluations of the drug attributes (X_8 and X_{17}). Factors which account for this divergence were outlined in the earlier discussion of the decomposed effects of these variables.

The parole selection can also be shaped by the indirect effects of model attributes through variables other than officer recommendation. In the present analysis, the indirect effect of aggregate sentence on board dispositions through institution (.08) should be noted. The effects of the exogenous variables via intervening factors are of particular interest. Table C.2 indicates that age and socioeconmic status indirectly influence board decisions through their statistically significant associations with number of previous convictions. Table C.3 reveals that sex, age, marital status, and socioeconomic status are related in a statistically significant manner with employment stability. The latter directly affects officer

recommendation and, in turn, indirectly influences board dispositions. Although these associations suggest that parole selection may be influenced by class-linked or social segment-linked behavior variation, the indirect effects are very small. On the whole, the tables of decomposed effects for officer recommendation and board decision reveal that the indirect effects are negligible.

Interaction Effects. The complexity of human behavior suggests that the concept of statistical interaction[40] is an important one. Sociological theories often imply that two or more variables interact in their influence on a dependent variable (Blalock, 1965). The presence of interaction effects is ascertained, in common practice, by including the product of two or more independent variables as additional terms in a multiple regression equation (Allison, 1977). Interaction tests for all possible combinations of selection model attributes were not undertaken in the present analysis because there appeared to be no theoretical rationale for applying this procedure. Moreover, problems of calculation and interpretation for higher-order interactions often arise as a result of multicollinearity between first- and second- or higher-order terms.

Nevertheless, two interaction tests were conducted in order to further analyze the impact of race on

parole selection. One test examined the race-officer recommendation association. Multiple regression was used to determine the influence of the selection model attributes (X_1 to X_{20}) on officer evaluations. In addition, the products of race and each of the other independent variables were inserted as interaction terms in the equation. None of these terms was found to be related to officer recommendation in a statistically significant manner and, thus, no evidence of interaction was uncovered.

A second test was undertaken with reference to a possible race-institution-problem drinker interaction effect on board decision-making. Hagan's (1974b) study of incarceration in a western Canadian province showed that the racial disparity in sentencing resulted from the differential seriousness of the crimes charged against white and native offenders. The latter were primarily charged with minor offences and tended to receive shorter sentences. Moreover, drinking problems were nearly twice as common among indian/métis offenders as they were among their white counterparts. These findings are of interest to the present analysis in view of the effect of institution on board dispositions. As noted earlier, federal inmates are more likely to be granted parole. It was suggested that this association might be explained by the proportional distribution of

good and poor risks in federal and provincial institutions. Many of the best risks in provincial institutions receive short sentences and, as a result, might not apply for parole release. Given Hagan's conclusions, the impact of race on parole selection could be due to the "poorest" native parole risks, i.e., those with longer sentences and drinking problems, submitting applications while the better risks, given shorter sentences, would chose to serve to expiry. In order to test this hypothesis, a three-way interaction term (race-institution-problem drinker) was inserted into a regression equation measuring the influence of the selection model variables on board decision. The interaction term did not attain statistical significance.

Conclusion

This study was designed in order to explore the parole selection process and, more specifically to empirically test the question: Does the discretionary power exercised by parole officials result in prejudicial decision-making? Path analysis techniques were used to isolate and analyze the criteria which form the basis for parole selection.

What conclusions can be drawn from the present analysis? First, this study clearly documents the

complexity of the parole selection process. The grant or denial of parole is determined by a myriad of factors that vary in the magnitude of their effects, in their channels of influence, and in the weight they are accorded by parole system officials.

Second, an analysis of the effect components of the extralegal attributes commonly considered by researchers, i.e., age, sex, race, and social class, fails to substantiate, with a few important exceptions, the hypothesis of discriminatory decision-making. A consideration of the direct effects of the exogenous variables on board disposition reveals little support for the conflict proposition of legal bias. The education effect on board decision can be termed supportive of the discrimination thesis, but only to the extent that it can be considered a reliable indicator of social class position. Unfortunately, restriction in socioeconomic status variation prevents a conclusive statement as to the influence of this factor on the selection process although, as defined, its impact on board dispositions is negligible. However, the evidence does indicate that parole officers are more likely to recommend parole applications submitted by whites as compared to those tendered by native inmates. The race-officer assessment relationship is statistically significant at the .05 level. In fact, the evidence

suggests that officers differentiate between racial groups when selecting and weighting information items which determine their eventual recommendation. Consequently, officer evaluations may indirectly result in racial inequalities with reference to parole selection.

Third, an examination of the indirect effects of the exogenous variables, e.g., age, sex, race, and social class, does not offer much support for an alternative selection model wherein extralegal variables influence the decision to grant or deny parole through significant associations with intervening, legal or extralegal, attributes. Excluding those effects exerted via parole officer recommendation, the indirect paths can be treated, on the whole, as negligible.

Fourth, the study highlights the crucial role played by the parole officer in the selection process. The direct impact of his recommendations on board decisions is dramatic. Moreover, the largest indirect effects of the model attributes are transmitted through the parole agent's interpretative screen.

Finally, the results of this study suggest that certain organizational constraints may significantly affect the exercise of discretion by parole officials and, ultimately, influence the selection process. These constraints are produced by the small size of parole

boards and the extremely heavy workload with which they must contend. For example, Canadian board members rendered over 6,000 parole decisions in 1972. In addition, they were required to formulate decisions with reference to day parole submissions, parole terminations, and mandatory supervision terminations. Furthermore, they travelled regularly to federal penitentiaries across Canada in order to hold parole hearings.[41] As a result, the amount of time which can be devoted to the consideration of individual parole applications is reduced to a minimum.

The present analysis indicates that, in order to cope with the abovementioned problem, the exercise of discretion and, as a result, parole selection, is affected in two important ways:

1) Delegation of Discretion. The extremely high correlation between officer recommendations and board decisions suggests that a portion of the power to grant or deny parole is delegated to parole officers. This does not necessarily imply that parole decisions will be unjust. The strategic position of the officer in the parole process accounts, in part, for his disproportionate influence. In many ways, the agent occupies an ideal position from which to gauge parole risk. His ability to question the applicant at some length and

seek corroboration of information from independent sources constitute distinct advantages. By comparison, the board member confronts a number of obstacles. He must rely on information summarized and interpreted by officers. Only federal cases permit a personal encounter with the applicant. Of necessity, this parole hearing is of short duration. A recent study of parole selection in Canada (Carrière et al, 1976) noted that the average hearing lasted just over 35 minutes for the cases monitored in Ontario. Only 22 of the 100 hearings monitored in Quebec lasted over 30 minutes.[42]

Notwithstanding these advantages, delegation of discretion carries with it a very real danger. The parole officer may serve as a "channel of extralegal influence" (Hagan, 1975b) or bias. In fact, the present analysis uncovered evidence supportive of the discrimination hypothesis with reference to officer assessment of applications submitted by indian and métis candidates. Thus, delegation may indirectly produce prejudicial parole selection disparity.

2) Routinization of Discretion. It has been suggested that, in order to handle very large caselcads, parole boards find it necessary to develop a routine; to search for a few factors that will help them formulate decisions (Heinz et al, 1976). This assertion is supported by the

findings of this study. Age, education, current offence type, and aggregate sentence are related to board decisions in a statistically significant manner. These are forms of information which require little time and effort to assess. Factors which require considerable time to assimilate such as socioeconomic status, employment history, and prior criminal involvement exert no direct effect on board deliberations. Rather, the influence of variables such as the aforementioned is more likely to be transmitted indirectly through parole officer recommendations. Thus, it would appear that certain, easily accessible, items of information are employed by board members as "rules of thumb" or guide-posts symptomatic of a range of other attributes in order to formulate board decisions.[43] Here again, such operational practices may result in discriminatory parole selection.

In short, the results of this study indicate that further analysis of the organizational structures within which parole officials and other criminal justice representatives operate will offer valuable insights with reference to the exercise of discretion in the criminal justice system.

FOOTNOTES

1. A sentence of imprisonment imposed by a judge in Canada represents a maximum term of incarceration. In addition to parole release, the actual period of time served in an institution may be reduced by two types of remission. Upon admission, a convict is granted "statutory" remission equal to one quarter of his original, definite sentence. Furthermore, remission can be "earned" for good behavior at the rate of three days a month. Barring any loss of remission for institutional infractions, an inmate will remain incarcerated for approximately two-thirds of his sentence, should he not be granted parole. A parolee serves two portions of time in the community: his sentence remanet plus the time period equal to the sum of his earned and statutory remissions. Consequently, a parolee remains under the jurisdiction of legal officials for a longer time span than would be the case had he simply elected to remain in prison until normal expiration of sentence. However, with the introduction of mandatory supervision in 1971, federal inmates released by expiry must remain under parole service jurisdiciton for a period of time equal to the sum of their earned and statutory remissions. During that period, they can be returned to prison upon revocation or forfeiture of mandatory supervision. This situation does not apply to provincial inmates.

2. Convicts sentenced to terms of incarceration not in excess of two years less one day are housed in provincial institutions. Individuals sentenced to terms of imprisonment equal to two years or more are transported to federal institutions.

3. Individuals sentenced to preventive detention (habitual criminals and dangerous sexual offenders) or to life imprisonment are subject to different eligibility rules. The Board is required to review preventive detention cases annually. However, few paroles are granted in such cases before at least 8 to 10 years have been served. In order to satisfy the eligibility criterion, inmates given life imprisonment must serve: 7 years if sentenced prior to January 4, 1968; 10 years if sentenced between January 4, 1968 and January 1, 1974; and 10 to 20 years, as stipulated by the sentencing court, if convicted after January 1, 1974 (Solicitor General,

1976:5-6). Moreover, when lifers become eligible the Board can only recommend parole. Consent must come from the Federal Cabinet.

4. In 1972, the time period for which data were gathered, the parole eligibility criterion for federal inmates was one-third of sentence or 4 years, whichever was the lesser. The criterion was changed to one-third of sentence or seven years, whichever is the lesser, in 1973.

5. A community investigation may not be requested by the parole officer should other information available to him seem so negative as to preclude the possibility of parole. Failure to request or conduct such an investigation strongly suggests that the parole officer will recommend parole denial.

6. Presently, most federal parole applications are evaluated by the appropriate regional board members. Provincial applications and federal cases requiring more than two votes are handled by members in Ottawa. The data analyzed in this chapter refer to applications considered prior to decentralization. In 1972, all members were located in Ottawa and visited penitentiaries across Canada on a regular basis.

7. For example, armed robbery, drug importing, and rape cases require 3 votes. Organized crime involvement requires 5 votes and 7 votes are needed for lifers (Carrière et al, 1976:114).

8. The Parole Act does not require that applicants be granted personal interviews. However, hearings were held with federal inmates until 1973 when they were suspended due to National Parole Board manpower shortages. They were reinstated following Board expansion and regionalization.

9. A number of factors influenced the decision to sample data from parole applications considered in 1972. As evident in Figure 1, 1972 does not represent an extreme year with reference to the percentage of paroles granted but rather tends toward the mean (49%). It also occurs during a downward trend in Board willingness to grant parole when, it might be argued, bias in parole selection would be more evident. Moreover, Board regionalization occurred subsequent to the year in question. Consequently, data collection was facilitated by the presence of the majority of the files in Ottawa rather than their wholesale

dispersal throughout regional headquarters across Canada.

10. The totals calculated from the alphabetical lists do not equal those recorded for 1972 in Appendix B. This discrepancy is due to the inclusion of parole deferrals in the latter figures. They were excluded from the study's population of interest. It should be noted, however, that the majority of the applications which were initially deferred were eventually denied.

11. Discussions of the basic principles of sampling and types of sample design can be found in Moser (1958) and Lazerwitz (1968).

12. Stratification is a method of using knowledge of the population of interest to increase the representativeness and precision of the sample. Prior to selection, the population is divided into strata and, subsequently, a subsample is selected within each strata. As the study population contained 156 parole requests from females and 4,526 male requests, simple random sampling would have produced a minute number of female cases and the influence of sex on Board decision-making could not have been examined.

13. Systematic sampling involves the selection of every Kth item in a total list for inclusion in the sample. The sampling ratio is determined by dividing the total number of items in the list by the number of items which one desires to select. The first item is chosen randomly in the initial sampling interval thus precluding selection bias.

14. A form of stratification was also used in order to ensure a sufficient number of native parole applications. In addition to the initial sample, an identical supplementary sample of male applicants was also drawn. Supplementary sample parole files were examined and native applicants were added to the initial sample. As a result, native representation was sufficient for analysis.

15. Sample shrinkage occurred primarily with reference to those files which were still active and, as a result, had been dispersed to the appropriate regional offices having jurisdiction for the institution where the applicant was incarcerated. When these offices were visited for data collection purposes, some of the files were unavailable due to

inmate transfer, active examination by Board members, or return to Ottawa following case closure. A few cases were simply missing.

16. Descriptions and discussions of causal model, path analysis, or simultaneous equation techniques can be found in Blalock (1964; 1968; 1969), Duncan (1975), Heise (1969; 1975), Land (1969), and Wonnacott and Wonnacott (1970).

17. Some confusion exists in the literature with reference to the notion of indirect effect. If one specifies a model in which a set of exogenous variables are intercorrelated for unknown reasons, it will be possible to assess their direct effects and/or their indirect effects through intervening (endogenous) variables, but not the indirect effects of the exogenous variables through each other. Therefore, when the underlying theory is too weak to determine causal direction among exogenous variables, the correlations cannot be broken down entirely (Namboodiri et al, 1975:464). Duncan (1971:137) has proposed that this situation be calculated as effect shared with the other exogenous variables. Nevertheless, the interpretation of the results remains ambiguous.

18. In theory, there are no "irrelevant" attributes with reference to parole board decision-making because the formal criteria are so broad that they can encompass virtually any factor. In fact, this is one of the major, recurring criticisms of the parole process. Consequently, it becomes important to determine the basis of differential parole dispositons, i.e., to identify those traits which, in practice influence board decisions. This is the principal objective of the present analysis. A distinction is noted between relevant and irrelevant attributes in the sense that the former refer to ascribed traits while the latter indicate achieved characteristics. The importance of this distinction is noted in the conflict perspective in that it is argued that discrimination occurs when official dispositions are based on what offenders "are" rather than what they "have done". However, this conceptualization is an ambiguous one in that many traits contain elements of ascription and achievement. Consequently, the present analysis concentrates primarily on the distinction between legal and extralegal variables. Nevertheless, particular attention is paid to the influence of age, sex, race, and social class on parole decision-making.

19. The term métis refers to individuals of mixed, indian and white, e.g., french, ancestry.

20. Educational achievement was treated as an ordinal-level variable because of inmate tendency to exaggerate scholastic achievement and the possibility of improving educational level during imprisonment. Marital status is treated as a dichotomous variable as it is particularly susceptible to change during incarceration. On the one hand, enforced separation may lead to marital breakdown. On the other hand, the acquisition of a "fiancée" may increase the probability of temporary absences.

21. Although a causal connection could be specified between SES (X_6) and education (X_4), they are treated as merely intercorrelated in the present analysis. This decision was influenced by the susceptibility to change of educational level during incarceration.

22. The labels "problem drinker" and "drug user" represent evaluations rendered by the various officials who come into contact with the inmates. The inmate may avow or deny these statuses. Nevertheless, these labels are "real" in the sense that they are recorded in the parole file and may influence parole recommendations and decisions. In fact, continued denial of these conditions by the inmate may be interpreted as lack of insight and, therefore, unsuitability for parole.

23. Although previous parole is treated as a dichotomous variable, very few inmates would have been granted more than one previous parole. As such, it can be interpreted as an interval-level variable.

24. Employment record was coded as sustained or sporadic. A continuous period of employment for at least one year prior to current offence constituted a minimum criterion for sustained employment classification. The diverse presentation of employment information in parole files prevented the use of more specific categories.

25. Escape refers to prison breach. This is distinguished from being "unlawfully at large" which usually refers to failure to return from a temporary absence.

26. Robberies were included in this category.

27. A wide variety of offences were reported and they could have been collapsed in many ways. This particular classification scheme was chosen because it grouped the offences in a number of logical, comparatively exclusive types without requiring an unwieldy number of categories. However, it is recognized that these categories are not strictly homogeneous and that, within each type, board members might view certain crimes as more "serious" than others. Nevertheless, it was felt that the variation across types would exert a greater impact on parole selection than that within.

28. The system is termed a recursive one in that it is assumed to involve "one-way" causation only and thus contains no reciprocal causation or feedback loops (Heise, 1969).

29. It is common practice to render causal interpretations from observed correlations. Throughout this dissertation, the "effects" of one variable on another are analyzed. However, one must guard against the fallacy of assuming that what is correlated with an event is necessarily the cause of that event (Nettler, 1978). Although constant conjunction is an element in the definition of causality, it is not sufficient to distinguish a causal relationship from other types of association. A correlation measures the degree of linear association between two variables. However, it tells us nothing about their causal ordering. The causal linkages in the models specified in chapters III and IV derive from theory and past research. With reference to each model, one causal ordering has been chosen from a vast number of possible compinations and has been assumed to be the "true" ordering. That choice cannot be based solely on the correlations between the variables because the correlation matrix would be consistent with any causal ordering (Duncan, 1975).

30. Knoke (1975) and Goodman (1976) maintain, as a rule of thumb, that the violation of the unrestricted range assumption by the use of nominal dependent-variable regression is inconsequential when the split on the dependent variable for the sample as a whole is within the 25% to 75% range. Such is the case for the parole selection sample.

31. The path or beta coefficient measures the amount of change in a dependent variable associated with a standardized change in an independent variable when

the other independent variables in the regression equation are controlled.

32. It is important to distinguish total associations and total effects. The total association between any two variables in a recursive model is given by their zero-order correlation. The association between any two variables contains one or more of the following components: unanalyzed correlation among exogenous variables; spurious correlation due to joint dependence on common or correlated variables; and total effects. A total effect is expressed as the sum of direct and indirect effects. An indirect effect represents that part of a total effect which is mediated or transmitted by a variable specified as intervening between the cause and effect of interest. That part of the total effect between two variables which is not mediated by intervening variables is termed the direct effect (Alwin and Hauser, 1975).

33. This level of agreement has been reported in earlier studies of probation officer influence on judicial disposition (Carter and Wilkins, 1967; Hagan, 1975b).

34. A pragmatic element must enter into any decision to treat certain effects as negligible. In the present discussion, all effects of a magnitude less than .05 are so considered unless they are statistically significant.

35. The sum of direct and indirect effects for a predetermined variable should equal the total effect. However, some discrepancies occur as a result of the rounding procedure.

36. Evidence supporting this assertion was found when coefficients were estimated for regression equations based separately on federal and provincial applications. With reference to federal cases, employment index was significantly related to board decision at the .01 level. There was no statistically significant relationship between the index and parole decision for provincial cases. This finding highlights the potential impact of a personal encounter between applicant and parole official while hinting at the possible influence of organizational features in the selection process.

37. Blishen's socioeconomic index of occupation scale is coded from low (14.40) to high (75.28) with a mean of 32.21 and a standard deviation of 8.67.

38. Carter and Wilkins (1967) noted a similar, strong association between probation officer recommendations and court dispositions. They maintained that this correlation could be explained, in part by the ability of probation officers to "second-guess" judges and the tendency of the latter to "follow" recommendations submitted by the former.

39. A statistically significant difference was found with reference to crimes versus persons in that (at the .05 level) whites were less likely to have been convicted of such offences.

40. Independent variables X_1 and X_2 can be said to interact upon the dependent variable Y if the effect of X_1 on Y depends on the level of X_2 and vice-versa.

41. In fact, the workload proved to be so physically exhausting that parole hearings in federal institutions in 1973 were suspended. They were resumed following regionalization and expansion of the Board. In 1976, the "expanded" Board was composed of 20 members.

42. A study of parole selection in Connecticut from fiscal year 1969 to 1975 revealed that the average hearing lasted 18 minutes (Talarico, 1976:450).

43. In Canada, a case face sheet is inserted into the applicant's file. It attempts to summarize the formidable amount of information contained therein. Such a procedure would certainly seem to encourage routinized decision-making.

CHAPTER IV

BIAS IN THE PAROLE SUPERVISION PROCESS: AN EMPIRICAL EXAMINATION

Parole is a form of conditional release from prison prior to termination of sentence. Those men and women granted parole continue to serve the unexpired portions of their sentences in the community subject to certain conditions set forth by the parole board. Violation of these regulations can eventuate in parole loss and reincarceration.

The exercise of discretion in the parole process is not restricted to the selection phase. Parole authorities also formulate decisions subsequent to release which can significantly affect parole outcome. Moreover, there exist few constraints with reference to decision-making during the parole supervision phase. Consequently, discretionary power can be exercised in a discriminatory manner.

Few studies have focused directly on the possibility of prejudicial decision-making during parole supervision. Rather, most researchers have concentrated on the development of increasingly intricate parole outcome prediction instruments. Nevertheless, some tentative conclusions can be extrapolated from those studies which have

correlated certain personal-biographical attributes with parole success/failure. As revealed in the second chapter, these investigations have shown that, by and large, those variables which describe the length, seriousness, and consistency of an offender's criminal history prove to be the best indicators of parole outcome, albeit their predictive power is not great. Little evidence has been uncovered which would support the claim that racial and social class inequalties influence parole success or failure although statistically significant age- and sex-parole outcome associations have been reported. However, these findings cannot be termed conclusive. Validation or refutation of the hypothesis of prejudicial parole supervision awaits the analysis of relevant data by sophisticated methodological techniques that will simultaneously consider the effects of plausible explanatory factors and examine their impact in a causal rather than merely correlational manner. This study attempts such an analysis.

Whether or not the discretionary power exercised by parole officials results in disparity of treatment or bias is the central question addressed by this empirical examination of parole supervision in Canada.

Parole Supervision in Canada

Should a parole request be approved by the National Parole Board,[1] the successful applicant will be given a parole certificate and the Canadian Penitentiary Service will assume the costs of travel to his destination. Upon release,[2] the parolee is expected to travel directly to that community and report immediately to his parole supervisor.

The total parole period extends from the date of release to the date of official sentence expiry. This time served in the community consists of two portions: (1) the time that would have been served in the institution prior to release had parole been denied; and, (2) the earned and statutory remission time.[3] Certain inmates, those sentenced to life imprisonment or preventive detention, are serving indeterminate sentences which have no expiry dates. However, these paroles can be reduced over time and the parolees can be discharged eventually from parole by the Board.[4] Normally, reduction and discharge are accorded only to those parolees who have been at liberty for a long period of time and who are deemed completely rehabilitated and unlikely to recidivate.

The terms of parole are listed in the agreement signed by the inmate prior to release (Appendix A).

The first clause in the parole document stiputlates that the parolee will remain until sentence expiry under the authority of the designated representative of the Board. He must report to his parole supervisor on arrival at his destination and to the local police as instructed by the supervisor.[5] The other standard parole conditions require that the parolee: not leave the area to which he was released without permission; attempt to maintain steady employment; obtain approval before purchasing a motor vehicle, incurring debts, marrying, and owning or carrying weapons; abide by the instructions of his supervisor or Board representative; and, obey the law.

Certain special conditions may also be stipulated by the Board prior to release. For example, these terms may: prohibit the use of intoxicants; prohibit travel to designated areas or asscciation with specific individuals; or, require participation in certain treatment programs. In addition, such conditions can be imposed or deleted subsequent to release depending on the parolee's conduct in the community.

Three officials usually share responsibility for supervision: the designated representative of the Board, the parole supervisor, and the local police chief. The duties of the Board's representative are assumed by the district director, his assistant(s), or, in smaller

parole offices, a designated parole officer. These duties involve the authorization of travel permits, requests for parole amendments, suspension warrants, etc. In general, direct parolee-representative contact is rare. With reference to police reporting, the chiefs usually delegate this responsibility to one or more of their officers. The role of the police in the supervision process is primarily one of surveillance.

Every parolee is assigned a supervisor, usually a member of the National Parole Service. The supervision form can be direct or indirect. Parole officers often exercise an indirect form of supervision over certain clients while direct contact is provided by workers in other public agencies such as provincial probation services, by caseworkers from private agencies such as the Salvation Army or the John Howard Society, by police officers, or by volunteers in the community.[6] In such cases, the parole officer is informed of parolee conduct through regular, written reports submitted by the supervisor as well as intermittent telephone and personal contacts with the latter. Regardless of the type, the National Parole Service maintains final responsibility for supervision.

Supervision occurs mainly in the form of face-to-face contact with the supervisor in the agency office. This is supplemented by occasional visits to the

parolee's home and contact with his immediate family, and less frequently, contact with his employer. Telephone contact is also commonly used. Supervision is usually most intensive at the outset of the parole period and is gradually relaxed over time. Waller (1974:129) found a clear pattern of face-to-face interaction between parolee and supervisor in Canada: 17% of the contacts occurred in the first week, 33% occurred in the first 5 weeks, and 63% occurred in the first 3 months.

During the period for which the study data were collected, the supervisor exercised discretion with reference to frequency of contact. In 1976, however, minimum supervision standards were created in order to ensure a minimum number of interviews and promote a community rather than an office setting. Supervision was divided into three categories: intensive, active, and periodic. All cases, whatever their presumed risk level, remain in the intensive supervision category until the beginning of the fourth month of parole. Parolees must be interviewed every 15 days and community visits are strongly encouraged. At the fourth month, lower risks can be moved to the active supervision category. They must be interviewed every 21 days and community visits are emphasized. All cases who committed or attempted to commit a crime against the person for which they were

convicted on the current sentence or in the last seven years must remain in the intensive category until the beginning of the seventh month prior to moving into the active category. Finally, cases whose behavior has demonstrated that their risk is minimal can be moved into the periodic supervision category. They must be interviewed once a month.[7]

Throughout the parole period, pertinent information is recorded in individual parole files. Reports summarizing parole progress are also prepared and copies are forwarded to the Board on a quarterly basis until termination.[8] The information contained in these progress reports refers to: the parolee's present attitude and response to supervision, the number and types of parolee-supervisor contact, the parolee's living arrangements, his employment and financial situation, his family and other relationships, his use of leisure time, the supervisor's assessment of parole progress, the inmate's view of his own problems, and any special instructions.

Parole can be terminated in a number of ways. Successful termination occurs with sentence expiry or parole discharge. Parole violations can result in revocation or forfeiture - revocation because of a violation of parole conditions; forfeiture because of a conviction for an indictable offence punishable by

imprisonment for a period of two years or more.

The process which eventuates in termination by revocation or forfeiture starts with a parole suspension. Section 16(1) of the Parole Act (1972:9) states that a member of the Board, or any person designated by the Board, may, by a warrant signed by him, suspend any parole and authorize apprehension. Once suspended, the parolee is apprehended and taken into custody.[9] Within 10 days, the inmate is interviewed by a parole officer and given the reason(s) for suspension in writing.[10] Within 14 days of the arrest, the Parole Service is empowered to cancel the suspension, order the inmate's release to the community, and continue parole. If such a decision cannot be reached or if the Service recommends revocation, the case will be referred to the Board for a final decision. Should the Service recommend revocation, the inmate will be informed in writing of the reason(s) for this recommendation. The Board must decide whether to continue or revoke parole.[11]

If parole is revoked, the subject is returned to a penitentiary where he will serve that part of his sentence, including remission time, that remained on the day of his parole release, minus time spent in custody. The subject may request a post-revocation Board hearing.

If the subject is convicted of an indictable offence, parole forfeiture is automatic and there exists no possibility of a post-forfeiture hearing.[12] The new sentence is made up of two periods: the sentence remanet including remission periods less time spent in custody, and the new sentence. These periods are served consecutively. Moreover, the subject is considered to have violated parole on the day the offence was committed and not the day of conviction, which might have occurred after the parole period.[13]

Subsequent to either revocation of forfeiture, a new parole eligibility date is calculated and the subject will be reconsidered (should an application be made) at that time.

Sample Selection

For sampling purposes, alphabetical listings of paroles terminated in 1972 were obtained from Naticnal Parole Service headquarters in Ottawa. Of the 4,624 paroles terminated during this period, 3,316 were ended by reason of sentence expiry or discharge; 844 were forfeited; and, 421 were revoked.[14]

A stratified, systematic sampling design was used to construct the parolee sample. Initially, the population of interest was stratified by sex. Given the

small number of female parolees, a decision was made to include all of the female cases in the sample. The male parolee population was stratified by termination type. Parole forfeiture, i.e., reincarceration due to conviction for an indictable offence, results in automatic parole termination and provides little opportunity for the exercise of discretion by parole officials. Consequently, such cases were excluded from the present analysis. Therefore, equal numbers of males were systematically selected within each of the remaining termination categories: parole expiry and parole revocation.[15]

In short, the parole termination sample was composed of:

(a) all females whose paroles were terminated in 1972 (N=102);

(b) a systematic subsample of males whose paroles were terminated by expiry or discharge in 1972 (N=200; and,

(c) a systematic subsample of males whose paroles were terminated by revocation in 1972 (N=200).

A total sample of 502 was drawn originally and data were collected for 473 cases.

It should be noted that the sampling design utilized can affect the results derived from the ensuing analysis. With reference to the present study, the male population

was stratified by termination type and equal numbers of cases were systematically selected from the parole expiry and revocation categories in order to ensure sufficient parole revocations for analysis. As a result, revocations were over-sampled while expiries were under-sampled in terms of their proportional distribution in the parole population.

Moreover, the male population was stratified on the basis of the dependent variable. Unfortunately disproprotionate sampling which maximizes variation in the dependent variable may contribute to misleading inferences because manipulation of the dependent variable can inadvertently disturb or confound the interrelationships between the independent variables (Blalock, 1964; 1967). Therefore, weighting procedures must be employed in order to obtain unbiased estimates of the population parameters.[16] In the present analysis, the selection probability for any parolee within each of the termination categories was calculated (Moser, 1958:97-99) and each case selected was weighted by the inverse of the selection probability for the appropriate category (Babbie, 1973: 127).[17]

Analysis

Consideration of the twenty variables, presented in an assumed logical-temporal sequence, in Table 6, ties the analysis together. They consist primarily of legal and extralegal attributes. The former refer to those variables which document the nature and extent of a parolee's prior contact (in an official sense) with the criminal justice system. The latter encompass those personal-biographical characteristics which do not describe such contact. Particular attention will be devoted to the age-, race-, and socioeconomic status-parole termination associations in an attempt to test the hypothesis of prejudicial exercise of discretion in the supervision process.

At the outset, it should be noted that the analysis is confined to male parolees. Although the entire female parolee population (terminated in 1972) was sampled originally, the exceedingly small number of female parole failures precluded their inclusion in the regression analysis. Of the 82 cases for which data was available, only 8 were terminated by revocation or forfeiture.

Age (X_1), race or ethnicity (X_2), education (X_3), marital status (X_4), and socioeconomic status (X_5) are considered exogenous variables and are treated as

Table 6

Variable List

Notation	Variable	Scale
X_1	age	number equals scale
X_2	ethnic background	white (1) indian & métis (2)
X_3	education	no formal education (0) 8 years or less (1) some high school (2) high school graduate (3) some university (4) university graduate (5)
X_4	marital status	married or common-law (1) single, separated, divorced, or widowed (2)
X_5	socioeconomic status	number equals scale
X_6	problem drinker	yes (1) no (2)
X_7	drug user	yes (1) no (2)
X_8	previous convictions	number equals scale
X_9	previous penitentiaries	number equals scale
X_{10}	previous parole	yes (1) no (2)
X_{11}	employment history	sustained employment record and employed at time of arrest (1) sustained employment record and unemployed at time of arrest (2) sproadic employment record and employed at time of arrest (3) sporadic employment record and unemployed at time of arrest (4)
X_{12}	current offence type A	other (0) escape or unlawfully at large (1)

Notation	Variable	Scale	
X_{13}	current offence type B	other	(0)
		sexual offence	(1)
X_{14}	current offence type C	other	(0)
		crime vs. person	(1)
X_{15}	current offence type D	other	(0)
		crime vs. property	(1)
X_{16}	current offence type E	other	(0)
		drug offence	(1)
XX_{17}	current offence type F	other	(0)
		parole revocation or forfeiture	(1)
X_{18}	aggregate sentence	numbers equals scale	
X_{19}	institution	federal (1) provincial	(2)
X_{20}	termination type	parole expiry	(1)
		parole revocation	(2)

intercorrelated rather than causally connected. Social class membership was measured by the Blishen and McRoberts revised socioeconomic index for occupations (1976). Problem drinker (X_6) is assumed to precede drug usage (X_7), primarily on temporal grounds, and both of these personal-biographical variables are specified as causally prior to the legal offender and offence attributes.

Previous convictions (X_8) is viewed as logically and temporally prior to previous penitentiaries and paroles, while previous penitentiaries (X_9) precedes previous parole (X_{10}). As these three factors can exert a significant influence on an offender's total employment situtation, they are seen as causally prior to the employment index (X_{11}). This extralegal attribute was operationally defined by an ordinal level index composed of employment record (sustained versus sporadic) and employment status at time of apprehension (employed versus unemployed).[18]

It is assumed that the employment variable precedes, in a causal sense, the current offence - indicated by a set of dummy variable offence categories. The offence types are: escape or unlawfully at large (X_{12}), sex offence (X_{13}), crime versus person (X_{14}), crime versus property (X_{15}), drug offence (X_{16}), and parole violation (X_{17}).

Current offence obviously precedes aggregate sentence (X_{18}). The latter can be interpreted as an indicator of offence severity and of judicial exercise of discretion. Moreover, in the present analysis, aggregate sentence measures time "at risk" on parole. As a rule, sentence length is directly proportional to the length of the parole period.

Aggregate sentence is specified as causally prior to institution where incarcerated (X_{19}). Given that institutional jurisdiction (federal versus provincial) is completely determined by the length of the sentence imposed, X_{18} is the only attribute which is causally linked to institution. As a result, the latter is an indicator of time at risk in that the parole periods of federal inmates will normally exceed those of provincial inmates. This attribute is also included in the model in order to determine whether federal and provincial parolees constitute separate populations with different probabilities of success - other than those attributable to differential parole lengths.

All of the aforementioned variables are causally linked to the dependent variable - termination type (X_{20}). The variable is coded as: (1) parole expiry and (2) parole revocation. Expiry indicates successful parole completion while revocation refers to loss of parole and reimprisonment due to violation(s) of parole

regulations.

Termination Type. As defined, this attribute reflects the exercise of discretion by parole officials following the offender's release to the community. As is the case for parole selection, the revocation process requires that board members accept or reject an officer's recommendation for parole continuation or termination. In chapter III, the impacts of the model attributes were examined for parole officers and board members separately. Unfortunately, this procedure could not be followed in the present chapter. The revocation subsample was selected from a population list of paroles revoked in 1972. This list permits the analysis of cases where the officer recommended revocation and the board concurred or where the officer recommended continuation but the board decided to revoke nevertheless. The list does not contain cases where the officer recommended parole continuation and the board agreed or where the officer recommended revocation but the board ordered continuation. As a result, officer assessments and board dispositions cannot be analyzed separately. Given this limitation, it is essential that the decision-making process be delineated clearly.

Unlike parole selection, the parole supervision phase offers substantially less opportunity for the exercise of discretionary power by parole board officials. Those individuals who successfully complete their parole periods do not come to the attention of the board. In addition, forfeitures result in automatic parole termination. Although board members can vote to grant an immediate reparole in such cases, this option is not exercised frequently. Thus, parole board decision-making is restricted, by and large, to those cases which involve the possibility of revocation.

In sharp contrast, numerous opportunities exist for the exercise of discretionary power by parole officers because they are in frequent contact with their clients from parole inception to conclusion. More importantly, officer decision-making is particularly crucial to the revocation process because it is the parole agent who determines which cases will eventually be forwarded to the parole board. It is the officer who initiates the process with a parole suspension. In addition, he can, within a 14 day period following the apprehension of the violator, cancel the suspension and reinstate parole without board involvement. Thus, board decisions will only be requested with reference to those cases where the officer believes that revocation is in order and, in a

few instances, those cases where he has been unable to cancel the suspension within the aforementioned time span. Finally, parole board officials must formulate decisions solely on the basis of information assembled and transmitted by parole agents.

This does not mean that board members exert no influence in the supervision process. They establish the standard regulations which serve as guidelines for the evaluation of parolee conduct. In addition, they can stipulate special conditions which the parole agent must enforce. The officer must demonstrate in a written submission that the violation of any of these conditions in a particular case is serious enough to warrant revocation. Undoubtedly, parole officers anticipate, to a certain extent, the "proof" that board officials will accept and structure their reports accordingly. However, the agent must rely on general board policy because the identities of the voting members are not revealed prior to the actual decision.

Given the nature of the decision-making process outlined above, it is assumed, in the present analysis, that an extremely high degree of consensus exists between officer recommendations and board dispositions. Nevertheless, the control which parole agents exercise with reference to information flow and board access to individual cases clearly reveals the importance of their

discretionary power on parole outcome.

The parole supervision model is presented in Figure 3. Certain variables are grouped into blocks in order to permit diagrammatic representation. Within the blocks, curved arrows denote intercorrelation and straight arrows denote causal direction. Residual or error terms are omitted for the purposes of clarity.

Method of Analysis. Path analysis techniques are used to evaluate the hypothesis of prejudicial parole supervision. Ordinary least squares regression with dummy dependent variable is utilized to compute path coefficients for successive reduced-form equations. That is, coefficients are derived initially for the equation containing exogeneous variables only and, subsequently, for equations which add intervening variables in sequence from cause to effect. Direct and indirect effects within the model are "decomposed" in order to further clarify the causal linkages (Alwin and Hauser, 1975). The rationale which underlies this method of analysis as well as the problems which must be confronted are outlined in chapter III.

Results. The discussion which follows focuses primarily on the path coefficients derived from the successive reduced-form equations for parole termination

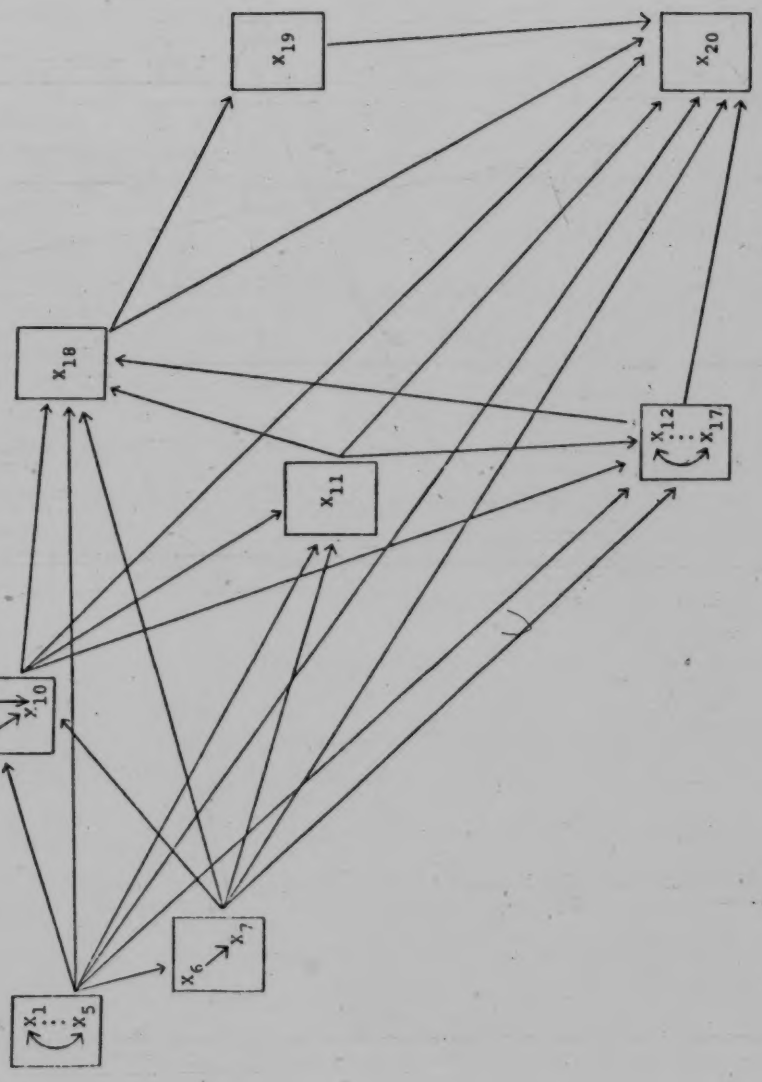


FIGURE 3

GENERAL MODEL OF THE PAROLE SUPERVISION PROCESS

(Table 7) and the subsequent decomposition of these coefficients into direct/indirect effect components (Table 9). Beta coefficients and effects for the other supervision models variables, as well as the zero-order correlation matrix, can be found in Appendix D.

An examination of the calculations performed with reference to the parole supervision model (Figure 3) reveals a number of interesting relationships:[19]

Institution (X_{19}). Table 8 reveals that inmates paroled from federal institutions are more likely to be revoked than their provincial counterparts. In fact, institution exerts the most striking direct effect on termination type (-.34) and the variables are related at the .001 level of statistical significance (Table 7). This association can be explained, in part by the fact that, as a rule, federal parole periods are longer than provincial ones. As a result, federal parolees are exposed to more situations which could eventuate in parole violations. In addition, it is possible that the prison experiences of inmates in federal institutions hamper the process of social reintegration following release and, thus, reduce the probability of parole success.

TABLE 7

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

(Expiry vs. Revocation)

Predetermined Variables	Equation and Dependent Variable									
	X_{20}	Y_{20}	X_{20}	X_{20}	X_{20}	X_{20}	Y_{20}	X_{20}	X_{20}	X_{20}
X_1	.04	.04	.04	-.03	-.03	-.02	-.02	-.08	-.11	-.14
X_2	.12	.10	.11	.10	.10	.11	.11	.09	.14*	.14*
X_3	-.02	-.02	-.03	-.06	-.06	-.06	-.06	.00	.07	.10*
X_4	.06	.07	.07	.07	.07	.07	.07	.09	.06	.03
Y_5	-.09	-.08	-.08	-.01	.00	.00	.00	.01	-.05	-.12
X_6		-.05	-.05	-.03	-.03	-.03	-.03	.03	.04	.09
Y_7			-.03	-.04	-.04	-.04	-.04	-.12	-.12	-.06
X_8				.32***	.33***	.30***	.30***	.26***	.21**	.19**
X_9					-.03	-.03	-.03	.00	-.05	-.01
X_{10}						-.10	-.10	-.15*	-.09	-.09
X_{11}							-.01	.01	.04	.04
Y_{12}								.00	.00	.03
X_{13}								.07	.05	.12
X_{14}								-.04	-.12	-.01
X_{15}								-.19	-.13	-.01
X_{16}								-.29	-.27	-.10
X_{17}								-.15	-.14	-.16
X_{18}									.40***	.24***
X_{19}										-.34***

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE 8

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

(Expiry vs. Revocation)

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via								Direct Effect
			X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12} to X_{17}	X_{18}	X_{19}	
X_{20}	X_1	.04	.00	.00	.07	.00	-.01	.00	.06	.03	.03	-.14
	X_2	.12	.02	-.01	.01	.00	-.01	.00	.02	-.05	.00	.14
	X_3	-.02	.00	.01	.03	.00	.00	.00	-.06	-.07	-.03	.10
	X_4	.06	-.01	.00	.00	.00	.00	.00	-.02	.03	.03	.03
	X_5	-.09	-.01	.00	-.07	-.01	.00	.00	-.01	.06	.07	-.12
	X_6	-.05	--	.00	-.02	.00	.00	.00	-.06	-.01	-.05	.09
	X_7	-.03	--	--	.01	.00	.00	.00	.08	.00	-.06	-.06
	X_8	.32	--	--	--	-.01	.03	.00	.04	.05	.02	.19
	X_9	-.03	--	--	--	--	.00	.00	-.03	.05	-.04	-.01
	X_{10}	-.10	--	--	--	--	--	.00	.05	-.06	.00	-.09
	X_{11}	-.01	--	--	--	--	--	--	-.02	-.03	.00	.04
	X_{12}	.00	--	--	--	--	--	--	--	.00	-.03	.03
	X_{13}	.07	--	--	--	--	--	--	--	.02	-.07	.12
	X_{14}	-.04	--	--	--	--	--	--	--	.08	-.11	-.01
	X_{15}	-.19	--	--	--	--	--	--	--	-.06	-.12	-.01
	X_{16}	-.29	--	--	--	--	--	--	--	-.02	-.17	-.10
	X_{17}	-.15	--	--	--	--	--	--	--	-.01	.02	-.16
	X_{18}	.40	--	--	--	--	--	--	--	--	.16	.24
	X_{19}	-.34	--	--	--	--	--	--	--	--	--	-.34

Aggregate Sentence (X_{18}). Of the total impact of X_{18} (.40), 60% is exerted directly on termination type (.24) and 40% is exercised indirectly via X_{19} (.16). The direct effect indicates that offenders with lengthy sentences are less likely to complete their paroles successfully. This relationship is statistically significant at the .001 level (Table 7). To the extent that aggregate sentence is an indicator of parole duration and, concomitantly, of "time at risk", this result is not surprising. In addition, the indirect effect through X_{19} supports the contention that institution may influence parole outcome - over and above the impact attributable to the comparative parole lengths of federal and provincial inmates.

Current Offence (X_{12} to X_{17}). The offence types vary in the nature and magnitude of their impacts on parole termination, although it should be noted that none of the associations attains statistical significance. The relationship between escape offence (X_{12}) and parole outcome can be treated as nonexistent. Sex offence (X_{13}) exerts a small, direct effect on termination type (.12) and a very small, indirect effect through institution (-.07). The former indicates that sex offenders are more likely to be revoked than the reference category - a collection of miscellaneous violations and the

latter shows that they are more likely to be imprisoned in federal institutions.

The direct impact of crime versus persons (X_{14}) on the dependent variable is negligible. This attribute affects parole outcome through small, indirect effects via X_{18} (.08) and X_{19} (-.11). Its influence derives from the fact that this type of criminal violation results in lengthy sentences and incarceration in federal prisons - two factors which enhance the likelihood of parole revocation.

Virtually all of the total effect of crime versus property (-.19) is exerted indirectly through intervening variables. The direct effect of X_{15} on X_{20} is nil. The impact of this factor on termination type is mediated by X_{19} (-.12). Here again, imprisonment in a federal institution increases the chances of parole revocation.[20]

The total effect of X_{16} on parole outcome is comparatively large (-.29). The small, direct effect on X_{20} (-.10) suggests that drug offenders enjoy a somewhat better chance of successful parole completion than their counterparts in the reference category notwithstanding the fact that the latter are more likely to be imprisoned in provincial institutions - as indicated by the indirect effect via X_{19} (-.17).[21]

The indirect effects of X_{17} on termination type are negligible. However, the direct effect (-.16) suggests

that those offenders whose original offence involved a parole revocation or forfeiture are more likely than other types of offenders to avoid a similar failure if reparoled.

Employment Index (X_{11}). Table 8 indicates that a history of sustained employment and possession of a job prior to apprehension for the original offence, i.e., prior to parole release, are unrelated to termination type (success vs. revocation). This lack of association is somewhat surprising given the conventional wisdom about the benefits of good "work habits" and the efforts expended by officers in gathering employment information during the selection phase of the parole process.[22]

A similar result was reported in a study of men released from federal penitentiaries in Ontario in 1968. The ability to predict recidivism (defined as rearrest) was not improved by including whether the offender was employed at the time of the original offence (Waller, 1974:175). However, the study found that post-parole employment was related to rearrest. Parolees were employed for longer periods in the community than those individuals who were merely discharged from prison at sentence expiry. This fact appeared to explain the delays in arrest associated with parole release in that, on the whole, dischargees were rearrested earlier than

parolees (1974:179).

Previous Parole (X_{10}). This attribute exerts a small, direct effect (-.09) on the dependent variable which suggests that offenders with no previous parole experience are less likely to be revoked when granted this form of release. An examination of the decomposed effects of X_{10} (Table D.10) reveals that those individuals who have never been paroled previously are: older, occupy relatively higher socioeconomic positions, and have few previous convictions - factors which enhance the probability of parole success.

Previous Penitentiaries (X_9), Previous Convictions (X_8). Given their strong intercorrelation (.53), these variables are grouped for discussion. On the whole, the impact of the number of previous penitentiaries on parole outcome is negligible. There is, however, an extremely small indirect effect (.05) via X_{18} which reveals that sentence length is positively related to previous penitentiary experience.

By comparison, the number of previous convictions is related to termination type at the .01 level of statistical significance. Of the total effect of this factor (.32), nearly 60% is exercised directly on the dependent variable (.19). The probability of parole

revocation increases with the number of previous convictions. This relationship has been reported with some frequency in the literature.

Drug User (X_7). The very small, direct effect of X_7 on X_{20} (-.06) suggests that drug users are more likely to have their paroles revoked. However, the relationship between these two attributes is complicated by the influence of intervening variables. As indicated by the very small indirect effect via X_{19} (-.06), the parole success probability of nonusers is reduced slightly by their greater tendency to be incarcerated in federal prisons. Moreover, X_7 exerts a small indirect effect through current offence type (.08). Tables D.5 and D.6 reveal that this influence is exercised primarily via property and drug violations. Both of these offence types increase the chances of parole success. The probability of successful parole completion is enhanced for nonusers with reference to property crimes and for users with reference to drug transgressions.

Problem Drinker (X_6). Although the total effect of this attribute (-.05) indicates that being a problem drinker decreases the chances of parole success; the small direct effect on X_{20} (.09) unexpectedly suggests that this attribute slightly increases the probability

of successful parole completion. It may be that certain parolees with alcohol problems are able to take advantage of treatment programs in the community and thus complete their terms without serious incident. On the other hand, parole officers may adopt a more tolerant attitude toward such parolees. Irwin (1970:170) has noted that some parolees, often alcoholics, evolve a "stumbling" relationship with their supervisors. That is, they present themselves as having insufficient resources and too little self-control to maintain themselves. As a result, they transfer the responsibility for their behavior to the parole agent and gain increased freedom to deviate. The supervisor is then confronted with a difficult and time-consuming task. Eventually, he may simply ignore them until they violate their paroles or successfully finish their terms without serious transgressions.

However, this direct impact is offset by very small indirect effects via X_{19} (-.05) and current offence type (-.06). With reference to the latter, this influence is exercised chiefly through X_{14} in that problem drinkers tend to commit crimes versus persons. This relationship indirectly reduces the probability of parole success for problem drinkers in that such crimes result in longer sentences and incarceration in federal institutions. The indirect effect via X_{19} further increases the chances of

revocation in that parolees with alcohol problems are more likely, regardless of their original crimes, to have served their sentences in federal prisons.

Socioeconomic Status (X_5). Table 8 disclosed that this variable, as measured by the Blishen and McRoberts scale, exerts a small, direct impact on parole termination (-.12). Parole success is inversely related to socioeconomic status. In addition, X_5 also exerts indirect effects on parole outcome via X_8 (-.07) and X_{19} (.07). These effects reveal that the higher the social class affiliation the fewer the number of previous convictions and the greater the probability of incarceration in a provincial institution. Both of these factors increase the chances of successful parole completion. However X_5 also exerts a very small indirect effect on termination type via X_{18} (.06) which indicates that socioeconomic status is positively related to aggregate sentence - a factor which increases the likelihood of parole revocation. Some caution should be exercised in interpreting the impact of socioeconomic status because its statistical variation is somewhat restricted and confined primarily to the lower end of the class continuum.[23]

Marital Status (X_4). The total effect of X_4 is very small (.06) and its direct/indirect effect components are negligible. Marital status does not appear to influence parole outcome (success vs. revocation).

Education (X_3). Notwithstanding a negligible total effect, Table 8 reveals that X_4 exerts a small, but statistically significant (at the .05 level), direct effect on termination type (.10). Surprisingly, parole revocation is positively related to educational level. At first glance, this finding appears incongruous. However, it should be noted that X_4 is strongly correlated with socioeconomic status (.54) and that the latter's variation is limited. This suggests that, in the present sample, the educational range is also limited and consequently there will be few parolees with high educational achievement, e.g., high school and university degrees.[24] Therefore, it is possible that, within this restricted range, those parolees who have had more schooling are less likely to terminate their paroles successfully.

This attribute also exerts a very small, indirect effect via X_{18} (-.07) which indicates that educational level is inversely related to sentence length. A very small indirect effect is also exercised through current offence type (-.06). Parolees with little schooling are more likely to have been originally convicted of

parole violations and crimes versus persons. Those with a higher educational standing are more likely to have been originally convicted of drug offences. Drug and parole convictions increase the probability of parole success while crimes against persons indirectly reduce that probability.

Ethnicity (X_2). Indian and métis parolees are more likely to be revoked than whites. X_2 exercises a small direct influence on termination type (.14) and the two variables are significantly related, in the statistical sense, at the .05 level. In fact, the direct effect is larger than the total effect component as a result of the suppressor effects of intervening variables. Nevertheless, the indirect influences are minute and can be treated as negligible.

Age (X_1). The probability of parole revocation decreases with the age of the parolee. Age exerts a small direct impact on the dependent variable (.-14). Very small indirect effects are transmitted via X_8 (.07) and current offence category (.06). These reveal that the number of previous convictions, and thus the possibility of revocation, increase with age and that older parolees are more likely to have been originally convicted of sex offences - a factor which also augments

the prospects of parole failure by revocation.

In sum, the analysis reveals that, with few exceptions, the direct effects of the supervision model attributes on parole outcome (success vs. revocation) are small and do not attain statistical significance.

On the whole, the direct effects exerted by the extralegal variables on parole outcome are small. A consideration of the direct impact of the exogenous variables reveals little support for the hypothesis of prejudicial decision-making by parole officials during the supervision segment of the parole process. Age and socioeconomic status exercise small direct effects on termination type. Both of these associations offer some support to the conflict thesis in that older and upper social class parolees are more likely to complete their parole periods successfully. However, these relationships are not significant in the statistical sense.

Although it was assumed that emotional support from a wife, common-law or otherwise, and a sustained employment record prior to parole selection would prove to be positive resources in terms of parole success, marital status and pre-parole employment history are unrelated to parole outcome. With reference to the latter, however, it was suggested that post-release employment might

exert a more significant influence on the type of parole termination.

It was also assumed that drug and alcohol problems would create serious difficulties for parolees with reference to the observance of parole regulations and for officers in terms of supervision. Moreover, board members often include drug and alcohol abstinence clauses in the parole agreement when granting this form of release. However, these two factors were not related to the dependent variable in a statistically significant manner. Drug use exerts a very small direct effect on parole outcome in that nonusers stand a better chance of successful termination. Surprisingly, the direct effect of X_6 on X_{20} suggests that parolees with alcohol problems enjoy a higher probability of parole success. Plausible explanations for this association were advanced in the earlier discussion of the decomposed effects of this attribute. Furthermore, it was noted that this success probability is suppressed by opposing indirect effects via intervening variables.

Only ethnicity and education are related to parole outcome in a statistically significant manner (at the .05 level). Although the results indicate that parole revocation is positively related to the educational level, the limited statistical variation of the education variable and its high correlation with socioeconomic

status suggest that, in the present study, the range of the education variable is restricted and concentrated at the lower end of the continuum. However, the direct impact of ethnicity on parole outcome does support the hypothesis of discriminatroy decision-making in the sense that natives are more likely to be revoked than whites.

The direct effects exerted by the legal attributes are generally small and, with one notable exception, not statistically significant. Nevertheless, the analysis reveals that the probability of parole expiry decreases as the number of previous convictions increase and these two factors are related at the .01 level of significance. By comparison, the number of previous penitentiary terms has no influence on parole outcome. However, X_{10} exerts a small direct effect on termination type which indicates that prior parole experience diminishes the chances of successful completion. A partial explanation for this relationship can be found in Table D.9 which reveals that previous convictions exerts the most striking direct effect on previous parole (-.37) and suggests that the latter can be equated with prior official involvement in the criminal justice process.

The offence categories vary in the magnitude of their direct impacts on parole termination, albeit none

attains statistical significance. Although sex offences are positively correlated with parole revocation, escape offences are unrelated to termination type. Crimes versus persons and property exercise little discernible direct influence on the endogenous variable. Rather, their impact is mediated by intervening variables which decrease the likelihood of success for parolees whose original convictions involved these offence types. The total and direct effects of X_{16} on X_{20} indicate that drug offenders tend to conclude their parole periods successfully. Interestingly, those offenders whose original convictions, i.e. prior to the present parole term, involved parole revocations or forfeitures are more likely to succeed if reparoled. This suggests that they were deterred by reincarceration or that, perhaps, they became more adept at concealing subsequent infractions.

Aggregate sentence and institution exert the strongest, direct effects on parole outcome. Both are related to termination type at the .001 level of significance. Those parolees who received the longest sentences and were housed in federal institutions run the greatest risk of revocation. In large part, these factors measure "time at risk" and show that the longer the parole period the greater the probability that parolees will encounter situations which could eventuate

in violations and the subsequent exercise of discretion by parole officials. Moreover, the results hint at the possibility that incarceration per se (as measured by institution) may also affect parole outcome independently of its association with parole duration. It suggests that certain experiences encountered in federal imprisonment, e.g., prisonization, may hamper attempts at social reintegration in the community and thus diminish the likelihood of parole success.

The parole supervision process can also be shaped by the indirect effects of the model attributes. The indirect effect of aggregate sentence on parole outcome through institution (.16) should be noted. In addition, the indirect effects of certain offence categories are larger than their corresponding direct influences. The impacts of the exogenous variables, e.g., age, race, and socioeconomic status, via intervening variables are of particular interest. For example, Table D.2 reveals that age and socioeconomic status indirectly influence parole outcome through their statistically significant associations with number of previous convictions. As indicated in Table D.4, older and lower class parolees are more likely to be convicted of sex offences - a relationship which indirectly reduces their chances of parole expiry.

However, as the table of decomposed effects reveals the indirect effects are, by and large, very small and, thus, do not offer much support for the hypothesis that social segment-linked behaviour patterns account for differential parole termination.

Interaction Effects. An interaction test was conducted in order to further clarify the impact of race on parole termination. Multiple regression was utilized to gauge the impact of the supervision model attributes on termination type. In addition, the products of race and each of the other independent variables were inserted as interaction terms in the equation. Only the race-institution term proved to be related to the dependent variable in a statistically significant manner (at the .05 level). Earlier results showed that indian and métis parolees were more likely to be revoked than their white counterparts and that inmates paroled from federal institutions were more likely to be revoked than those released from provincial prisons. The interaction test reveals that it is natives paroled from federal institutions who have the highest probability of termination by revocation and, concomitantly, the lowest probability of successful parole completion.[25]

Conclusion

This study was designed to explore the parole supervision process and, more specifically, to empirically test the question: Does the discretionary power exercised by parole officials result in discriminatory decision-making? Path analysis techniques were used to isolate and analyze the criteria which form the basis for parole termination (success vs. revocation).

What conclusions can be drawn from the present analysis? First, this study clearly documents the complexity of the parole supervision process. Successful or unsuccessful parole completion is determined by a myriad of factors that vary in the magnitude of their effects and channels of influence.

Second, the evidence uncovered in this study fails to substantiate, with one important exception, the hypothesis of prejudicial decision-making. Although the analysis indicates that younger, lower class parolees are more likely to be revoked (as predicted by conflict theory), these associations are not statistically significant. In direct contradiction to the thesis of legal bias, the evidence suggests that parolees who have attained higher levels of education are less likely to terminate successfully. However, the range of the education variable is restricted and the sample contains

few parolees who have completed high school or have had some university education.

The study does reveal that native parolees, especially those released from federal prisons, are more likely to be revoked than their white counterparts. The race-termination type association is statistically significant at the .05 level and suggests that the exercise of discretion by parole system officials may result in racial inequalities with reference to parole outcome.

Third, although the hypothesis of prejudicial decision-making cannot be rejected conclusively, an analysis of the indirect effect components of the supervision model attributes, particularly those associated with the exogenous variables, does not reveal much support for an alternative supervision model wherin extralegal variables influence parole outcome via significant associations with legal or extralegal, intervening variables. By and large, the indirect paths can be treated as negligible.

Fourth, the evidence uncovered shows that the probability of parole expiry is inversely related to the number of previous convictions - an association that has been reported with some frequency in the literature. To the extent that this legal attribute can be considered a reliable indicator of criminal commitment, the

correlation suggests that those offenders who most adhere to a criminal lifestyle are the least likely to complete parole successfully.

Fifth, aggregate sentence and institution exert the strongest influences on parole outcome. Thus, it would appear that, in large part, parole success is simply a function of parole duration or time at risk. That is, those offenders who are subject to the longest periods of supervision are the most likely to have their paroles terminated by revocation. On the one hand, such parolees have a greater probability of eventually encountering situations that will jeopardize their parole statuses and generate parole official decision-making. On the other hand, the results indicate that incarceration per se, e.g., in federal prisons, may also hamper the ability of parolees, e.g., those with the lengthiest parole periods, to cope with community life in general and the parole experience in particular.

Finally, the analysis hints at the possibility that certain organizational features of the parole supervision process may affect the exercise of discretion by parole system officials and, ultimately, influence parole outcome. Although it was impossible to analyze officer and board member decision-making separately, it can be concluded that the formal structure of the decision-making process during supervision enhances the

discretionary power of parole agents and restricts that of board members, especially in revocation cases. The latter's access to such cases is controlled by the officers' decisions in the field. Moreover, board member deliberations are based solely on the information supplied by parole agents. When these organizational constraints are combined with the small size of the parole board and its heavy workload; the exercise of discretion by officers becomes a crucial feature of the supervision process with considerable implications for parole outcome. Although the discretionary power of parole agents need not result in prejudicial decision-making, it creates a potential channel of extralegal influence or bias, nonetheless.

FOOTNOTES

1. The parole selection process is described in chapter III.

2. Parole release normally occurs at the parole eligibility date. The inmate may be released prior to this date if parole by exception or a period of day parole has been granted. If the parole decision is rendered after the eligibility date, the inmate is released as soon as the necessary administrative arrangements have been completed.

3. A parolee sentenced before August 26, 1969, serves the rest of his sentence minus the number of days of his earned and statutory remission. Anyone sentenced on or after that date serves the rest of his sentence including the remission periods (Canada, 1976:10). Prior to the introduction of mandatory supervision in 1971, a parolee, in effect, served a longer period of time under parole supervision than would be the case had he simply remained in prison until sentence expiry because he was not able to earn remission while on parole. With reference to mandatory supervision, it should be noted that since July 18, 1977, an inmate may refuse this form of release and remain in an institution to complete his sentence. Such a choice is not binding on an inmate, however, and he may subsequently request mandatory supervision. This request will be respected as soon as is reasonably possible.

4. Reduction involves the removal of certain parole conditions or a decrease in the frequency of parolee-supervisor contact. Certain parolees, day parolees or those serving death commutted sentences, can benefit from parole reduction, but cannot be discharged from parole. In general, the Board favors reduction and discharges are reserved for exceptional cases.

5. Normally, the parolee is instructed to contact the police on arrival and once a month thereafter. However, this condition may be gradually relaxed should the parolee perform successfully in the community.

6. Parole offices are located in the larger urban centres and each office is given jurisdiction over the surrounding geographical territory. As these areas can be quite large, direct supervision may prove impossible given the dispersal of the parolees. The only alternatives are very sporadic direct contact or indirect supervision. In some cases, a deliberate decision may be made to permit indirect supervision. Certain caseloads may be too heavy to permit effective direct supervision of all the parolees. In other cases, indirect supervision may be requested by the parolee and/or the potential supervisor because of prior contacts established during incarceration. Finally, certain parolees may have been given a sentence of imprisonment to be followed by a term of probation. In some of these instances, the probation officer will maintain direct contact with the offender during both the parole and probation periods in order to build a better rapport with his client.

7. Case conferences involving the assistant district director, section supervisor, or his counterpart in outside agencies must be held prior to moving a client into a lower supervision category. An exception to these standards can only be made after an in-depth study of the case by the supervisor and the assistant district director or his counterpart. These standards must also be met by supervisors when the supervision form is indirect. Moreover, they apply to all parole and mandatory supervision cases.

8. Reports on federal cases are sent to the Board's regional offices while provincial cases are forwarded to the Ottawa division. During the period for which data were collected, a notification of parolee arrival was sent initially to the Board and monthly reports were forwarded during the first 3 months. Subsequent progress report frequency was determined by the designated representative and the supervisor. Generally, reports were prepared whenever significant changes occurred in the parole situation and in the case of parole violations. A final report was submitted shortly after parole expiry.

9. Prior to October 1977, a suspension warrant had to be presented to a judge for his signature. Presently, the designated person's signature is sufficient to authorize apprehension.

10. Presently, post-suspension interviews are conducted by a parole officer. In the near future, the Board proposes to inaugurate personal post-suspension hearings.

11. The revocation voting pattern is as follows: 2 Board members vote with reference to cases where the current sentence was less than 5 years; 3 votes are required for sentences of more than 5 years but less than 10 years; 5 votes are required for sentences greater than 10 years duration; and, preventive detention and death commutted cases require 7 votes.

12. In certain cases where the offence, although indictable, was a minor one, the Board may exercise the option of an immediate reparole. Such discretion is not commonly exercised, however.

13. Subsequent to October, 1977, time spent in the community while on parole will be credited toward sentence expiry. Such was not the case previously. Mcreover, the forfeiture category will be abolished in the sense that parole loss will no longer be automatic but rather will be subject to Board discretion.

14. A number of paroles were terminated by death (N=43) but these were not included in the population of interest.

15. A form of stratification was also used to ensure a sufficient number of native parolees. In addition to the initial sample, an identical supplementary sample of male parolees was also drawn. The supplementary sample parole files were examined and native parolees were added to the initial sample. As a result, native representation was sufficient for analysis.

16. Discussions of disproportionate sampling and weighting procedures can be found in Babbie (1973) and Kish (1967).

17. The weighting process for SPSS computer analysis is described in Nie et al (1975:128).

18. With reference to the causal ordering of the employment index, it should be noted that one of its components - employment status on arrest - cannot logically or temporally precede previous convictions, penitentiaries, or paroles.

19. All direct and indirect effects which do not attain a magnitude of .05 are treated as negligible.

20. An apparent paradox exists with reference to the indirect effects of X_{15}, X_{16}, and X_{17} via aggregate sentence. Although these transgressions are more likely to result in shorter sentences they are also more likely to eventuate in imprisonment in federal institutions. Fortunately, the indirect effects via aggregate sentence are small enough to be considered negligible. Table D.1 reveals fairly large intercorrelations between these variables and suggests that multicollinearity confounds the interpretation of their effects.

21. Although drug offenders are more likely to be incarcerated in federal prisons, the indirect effect via X_{18} (-.02) reveals that the two groups do not differ in terms of aggregate sentence. Thus, for all intents and purposes, the groups are identical in terms of parole duration.

22. Data relating to employment on parole were not collected.

23. The socioeconomic index is coded from low (14.40) to high (75.28) with a mean of 33.40 and a standard deviation of 9.77.

24. In fact, 89.2% of the parolees in the sample had not completed high school, 5.8% had been involved in some form of university training.

25. The supervision model variables account for 36% of the variation in parole termination decision-making (success vs. revocation). The race-institution interaction term accounts for an additional 1.6% of the variation. It should be noted that the utility of R^2 in path analysis is a matter of some debate. Duncan (1975:63) notes that, while high R^2 are preferable, they are not sufficient, in themselves, to evaluate the success of a model. An R^2 can be increased by the addition of other regressors. However, this is no great achievement unless the model is correctly specified. He suggests that it is a mistake to focus too much attention on the magnitude of R^2.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

In recent years, the tenet of "equal treatment under law" has become the subject of heated debate. The conflict stems from the widespread belief that disparity of treatment, rather than equality, characterizes the criminal justice process. That is, it is argued that the decisions rendered by representatives of the legal system discriminate against certain social segments of the population. This controversy has been fueled by the growing realization that the exercise of discretion is fundamental to criminal justice administration.

Although a number of studies have endeavoured to test the discrimination hypothesis by analyzing the impact of extralegal attributes on decision-making in the various sectors of the criminal justice network, they have concentrated primarily on police and judicial dispositions. Little systematic attention has been devoted to the exercise of discretion in the parole system. This omission is somewhat surprising given that parole decisions are largely invisible, seldom open to review, and, therefore, particularly susceptible to bias.

The present study has attempted to respond to this neglect by an empirical examination of parole decision-making in Canada. It has sought, in general, to explore the selection and supervision phases of the parole process and, in particular, to determine whether the discretionary power exercised by parole officials results in prejudicial treatment. Data were collected for decisions rendered with reference to: a sample of parole applications submitted in 1972 and a separate sample of paroles terminated in the same year. Path analysis techniques were used to evaluate the discrimination hypothesis. The results of this analysis and their implications for more general, related issues are discussed in the present chapter.

Discretion, Disparity, and the Parole Process. Although conflict criminologists differ among themselves on some issues, they agree that social conflict is ubiquitous and that power is the basic characteristic of social organization. They maintain that the origins of criminal law and its administration lie in the conflicts of interests between groups and their differential ability to exercise power. The most powerful groups will enact laws defining as crimes those acts which threaten their interests, e.g., economic interests. Moreover, conflict theorists argue that the criminal

justice system reinforces the interests of these powerful groups by a differential application of crime definitions. That is, it is maintained that the decisions made by legal agents are determined more by who the offender is rather than by what he has done (Nettler, 1978:210). Consequently, these systems are held to be unjust because they allegedly discriminate against certain social groupings, e.g., young, lower class, minority group males.

In general, the discrimination hypothesis receives little empirical support when applied to the parole process in Canada, albeit it cannot be rejected conclusively. With reference to the selection phase, the analysis reveals little evidence of prejudicial decision-making by parole officials. In direct contradiction to the thesis of legal bias, board members are more likely to accept applications submitted by younger inmates and officers are more likely to recommend that females be released on parole. In addition, it would appear that socioeconomic status exerts no direct influence on parole selection. However, the variation in social status is limited and confined to the lower end of the class continuum. Conflict proponents could argue that this limited statistical variation indicates that discrimination occurs in the preparole segments of the justice process. Although this contention deserves consideration, the present study suggests that such "social sifting",

if any, occurs prior to sentencing because socioeconomic status exerts a negligible direct impact on aggregate sentence in the selection model. Finally, the positive correlation between educational level and board member decision to grant parole can only be termed supportive of the discrimination hypothesis to the extent that education is a reliable indicator of social class position.

The evidence uncovered in this study also reveals little evidence of prejudicial treatment in the supervision phase of the parole process.[1] Although the age- and socioeconomic status-termination type associations concur with conflict theory predictions, they do not attain statistical significance. Surprisingly, the evidence suggests that the probability of parole expiry is inversely related to educational achievement. Here again, however, the association must be interpreted with some caution because the range of the education attribute is restricted and confined to the lower end of the spectrum.

Notwithstanding the general lack of corroboration for the hypothesis of legal bias, the analysis does reveal a significant relationship between race and parole system decision-making.[2] Although race exerts no direct impact on board decisions in the selection process, indian and métis candidates are less likely to receive

favourable officer recommendations than their white counterparts. In fact, the analysis indicates that parole officers differentiate between racial groups in selecting and weighting information when formulating parole evaluations. Thus, it would appear that officer assessments can indirectly produce racial inequalities with reference to parole selection.

Moreover, the analysis reveals that natives are more likely to have their paroles terminated by revocation than whites. In fact, testing for interaction indicates that natives paroled from federal institutions have the greatest probability of revocation. As noted in the previous chapter, the institution variable represents, to some extent, a measure of time at risk. Federal inmates receive longer sentences than their provincial counterparts and, as a rule, their parole periods will also be lengthier. Consequently, they run the greatest risk of eventual exposure to situations which could induce parole violations and result in revocation. In part, this accounts for the high rate of parole failure among natives paroled from federal prisons vis-à-vis those released from provincial institutions. Although 65% of the natives paroled from provincial institutions were able to complete their paroles successfully, only 7% of their federal counterparts were terminated by reason of expiry. By comparison,

66% of the white, provincial parolees completed their paroles successfully whereas 29% of the whites released from federal prisons were terminated by parole expiry. Thus, the impact of "time at risk" would appear to be restricted to federal cases, as the analysis reveals no significant racial differences in parole outcome at the provincial level.[3]

In addition, it would appear that incarceration in a federal prison exerts a particularly pernicious influence on native offenders. Whereas 71% of the whites paroled from federal institutions were eventually revoked, fully 93% of the natives released from federal prisons were reincarcerated by reason of revocation. Thus, it may be that incarceration in a federal penitentiary creates problems of social reintegration that are particularly acute for native parolees.[4]

These findings clearly suggest that, in terms of future research, considerable effort should be devoted to the study of the native offender in the criminal justice system and, more specifically, to an in-depth analysis of the factors which influence his chances of parole selection and successful parole completion.

In sum, the present study fails to substantiate, with a few important exceptions, the claim of prejudicial decision-making by parole officials. As such, it offers

little empirical support to a conflict model of the parole process wherein sex, age, race, and social class exert significant direct effects on the decisions made by parole officials. However, discriminatory treatment need not be a necessary tenet of conflict theory. To the extent that the criminal justice system reflects and protects the interests of the powerful, those of the powerless are subject to a greater probability of definition as criminal. Consequently, certain social segments, given their relative lack of power, would be exposed to a greater categoric risk of criminal involvement. Thus, the disproportionate criminal involvement of the socially disadvantaged might more properly be explained by class-linked behavior patterns rather than legal bias. As such, the conflict perspective offers an alternative model of the parole process wherein the decisions formulated by parole system representatives are influenced by the significant indirect effects of age, sex, race, and social class via intervening variables. The evidence uncovered in this study reveals very little support for this alternative conceptualization. The indirect paths are generally very small and can be treated as negligible.

Given these considerations, it does not appear that a narrow theoretical formulation, based on discriminatory decision-making as the key proposition, will contribute

appreciably to a meaningful understanding of the exercise of discretion by parole officials in Canada. Notwithstanding the fact that the hypothesis of legal bias cannot be rejected totally, e.g., with respect to native offenders, it is not generally supported by the evidence uncovered in this study. Rather, the analysis suggests that a reformulation of the parole model is in order, i.e., an expansion which will integrate other explanatory factors and more accurately approximate the complexity of the parole process itself. In particular, the impact of organizational structures and processes on parole system decision-making will have to be more fully explored.

Parole - Towards an Expanded Perspective. Typically, parole research has concentrated on the attributes of individual parolees (Inciardi and McBride, 1977). By comparison, researchers have ignored the characteristics and work structures of the parole system officials whose decisions determine entry to and exit from the parole process. Board members and officers perform their duties within the context of their own work attitudes and the organizational structure of their work environment. These factors may significantly affect official decision-making.

To date, little systematic attention has been devoted to the personality and attitudinal traits of parole system representatives and their possible impact on selection and supervision. The research which has been undertaken has focused on parole revocation decision-making. As an illustration, a study of the New York State parole structure concluded that contrasting personality orientations among officers resulted in differential rule enforcement. "Authoritarian" officers reported more violations and recommended a greater number of revocations than their "case work" oriented colleagues (Dembo, 1970). Similarly, Takagi (1969) noted that willingness to revoke parole was influenced by an officer's attutudes towards his job. Hypothetical parole case histories were constructed and sixteen officers were asked to recommend case dispositions. Those officers who were hardworking and satisfied with their jobs were less likely to recommend revccation. Prus and Stratton (1976) studied revocation-related decision-making among forty-five parole agents in a midwestern state. They found that revocation was a socially influenced decision rather than a structured response to parole violation. That is, the decision to revoke a parolee was influenced by the agent's personal orientations and his perception of the probability that his recommendation would be accepted given the goals and

and personnel, i.e., supervisors and board members, of the system. Unfortunately, data with reference to the personality orientations of parole officials were not available for the present study. Nevertheless, the abovementioned studies suggest other plausible explanatory factors with reference to the exercise of discretion in the parole process and point to an important area for future research.

Other studies have attempted to gauge the impact of organizational and bureaucratic demands on parole official decision-making.[5] Takagi (1973) attempted to determine why the number of parole revocations had increased enormously in California over the years whereas the number of forfeitures and people sentenced initially to prison had remained relatively constant. He concluded that this increment could be attributed to the almost total control of revocation decision-making by parole officers. They had to cope with a fundamental conflict between the organizational demands of the agency and the personal welfare needs of their clients. Recent years, however, had witnessed a growing correctional concern with organizational efficiency and accountability. The officers' primary task had become the administration of organizational regulations rather than service to clients. Moreover, they knew that their work would come under administrative review only if they

erred in allowing parole continuation rather than revocation. As a result, these pressures had increased the likelihood that officers, when in doubt, would choose to sacrifice their clients and return them to prison.

McCleary (1975) used participant observation and interview methods to study the exercise of discretion by parole agents employed in Cook County, Illinois. He concluded that case decisions were often influenced by organizational demands which were unrelated to parolee rehabilitation or the protection of society.

An officer's discretionary power is determined by three structural variables: the situation, the client, and the agent's reputation for fairness and competence. The latter is crucial because an agent's ability to exercise discretion is directly proportional to the strength of his reputation. Both the client and the situation affect discretion indirectly via their impact on reputation.

A situation is defined as realistic or unrealistic by the parole agency in terms of its potential for generating adverse publicity.[6] Those officers who refuse to abondon clients in "hopeless" situations soon acquire reputations for being unfair or unrealistic and their ability to exercise discretion is restricted accordingly. As fairness is related to the situation, the latter will constrain officer behavior.

Officers also cultivate reputations for competence. In building such reputations, selectivity is an important component. That is, the agent must decide which clients to support and which to abandon. This decision is influenced by his perception of the parolee's "sincerity" or trustworthiness. Those officers who choose to defend the wrong clients acquire reputations for being imcompetent and their freedom to exercise discretion is also reduced. As competence is related to the agent's perception of the client, the latter will constrain officer behavior.

Finally, the exercise of discretion is constrained by the agent's reputation per se. Unfair and/or incompetent officers will encounter considerable opposition in negotiating on their clients' behalf with other justice agencies. Furthermore, they will be closely scrutinized by their supervisors and will be unable to rely on the latters' support should problems arise.

Thus, the situation, the client, and the officer's professional reputation delimit the degree of freedom which an agent has in making a case decision. Parole officers maximize their discretionary power by manipulating their reputations. Although this practice has short-term benefits for the agency, it corrupts the long-range objectives of parole by substituting reputation building for rehabilitation and the protection of

society.[7]

The evidence uncovered in the present study also suggests that certain organizational features of the parole process may influence appreciably the decisions formulated therein. With reference to parole selection, the analysis immediately reveals the striking correlation and direct effect of officer recommendations on board decisions. It would appear that a number of organizational factors help account, in part, for the extremely high degree of consensus between parole officials. It is the officers in the field who control the flow of information to the board. They assemble, interpret, and transmit the data which determine board member deliberations. Although this data is supplemented by very brief, personal interviews with federal candidates, provincial cases are evaluated solely on the basis of parole agent submissions. Moreover, the small size of the parole board and its extremely heavy workload may influence decision-making by reducing substantially the amount of time that can be devoted to the consideration of individual applications. Although it is quite probable that, to some extent, officers structure their reports in such a manner as to anticipate parole board concerns, the present analysis suggests that, concomitantly, the aforementioned

constraints tend to increase board member dependence on officer assessments as well as increase the probability that they will be accepted and followed. These organizational constraints encourage the delegation and routinization of discretion. Board members delegate some discretionary power to agents because the latter are in a better position to assess certain kinds of information, i.e., those which require considerable time and effort to assimilate or those which necessitate corroboration from sources other than the inmate. This assertion is supported in the present study by the statistically significant associations between officer recommendations and this type of information, e.g., drug use and employment history. Such attributes exert no significant direct effects on board decisions. By comparison, the findings indicate that board members base their deliberations on attributes that can be quickly assimilated, e.g., age, offence type, aggregate sentence, etc. This suggests that board personnel establish a routine, i.e., concentrate on a few, readily accessible, information items that are assumed to represent a range of other characteristics. Workloads and time limitations prevent the careful scrutiny of the latter.

Similarly, the empirical investigation of the supervision phase hints at the possible impact of

organizational features on decision-making. It was impossible to separate the effects of the model attributes on officer and board member evaluations. Nevertheless, a consideration of the formal decision-making process leads one to expect a high degree of agreement between agent recommendations and board dispositions. As is the case with selection, the officer controls the flow of information with reference to parole violations. In fact, board members are exposed to no other sources of information. More importantly, the agent controls board access to individual cases. Following a suspension, he can, within a specific time period, reinstate parole without board consultation. Consequently, the officer will, with few exceptions, forward to the board only those cases which, in his opinion, deserve revocation. Although he will undoubtedly anticipate board concerns when evaluating and reporting violations, the agent's discretionary power restricts that of the board nonetheless. Moreover, the constraints described with reference to selection, i.e., the small membership of the board, its heavy workload, and, thus, the time limitations, also affect board member deliberations. In general, these constraints should operate in such a manner as to enhance the importance accorded to officer evaluations.

These constraints need not necessarily eventuate in prejudicial decision-making. Nevertheless, the discretionary power exercised by the agent in his advisory role introduces a channel of extralegal influence in the process. This conclusion is supported in the present analysis by the indirect effect of race on board decision to grant parole via officer recommendation. Furthermore, the routinization of discretionary decision-making permits the omission of important factors and/or the use of legally irrelevant ones as rules of thumb or stereotypes.

In sum, a meaningful understanding of the parole process requires an expanded perspective. To date, research has focused primarily on the parolee as an isolated actor. However, the studies outlined above and the evidence uncovered in the present analysis suggest that the exercise of discretion in the parole process may also be determined by the attributes of parole officials and the organizational constraints of the system within which they operate. Future research should incorporate these factors in order to mirror more accurately the complexity of the parole system.[8]

Implications for Parole Abolition. The parole process is currently under attack on a broad front. In recent years, an increasing number of academics

and correctional practitioners have called for parole abolition and the substitution of fixed, determinate sentences with no provisions for early release other than remission. At present, California, Maine, and Indiana have enacted such legislation while Alaska, Illinois, Connecticut, Colorado, Washington, and Ohio are contemplating the possibility. It is quite likely that similar arguments will soon be voiced in Canada.

The findings of this study have a number of implications for the abolition debate because the controversy centers on the exercise of discretion by parole officials, e.g., board members. In short, it is argued that abuses of discretionary power result in prejudicial decision-making. However, the literature reviews and empirical analyses undertaken in the present study have failed to uncover much support for the discrimination hypothesis. It would appear that, in part, the call for parole abolition issues from a disillusionment with the rehabilitative capacity of correctional programs rather than empirical evidence of systematic, widespread prejudicial treatment.

Many proponents of abolition argue that the discretionary power currently possessed by parole boards should be transferred to the judiciary. Two important points must be considered with reference to this proposition. First, the general organizational

constraints which affect board member dispositions could also affect judicial discretion. The present analysis suggests that, in order to cope with workload and time pressures, board members resort to the delegation and routinization of discretion. These mechanisms have enhanced the discretionary power of parole officers and created a channel whereby inequalities can be introduced indirectly into the decision-making process. Similar pressures confront judges. Thus, it is not inconceivable that similar coping practices would evolve with reference to discretion with the resultant delegation of discretionary power to probation officers (via presentence reports) and lawyers (via plea negotiation). Ultimately, the judicial exercise of discretion could be significantly influenced by individuals, some of whom might be poorly qualified, who would make low visibility evaluations without any sort of regularized procedures. Therefore, there is no guarantee that a transfer of discretionary power would eventuate in "better" decision-making.

Second, the issue of the transfer of discretion to the judiciary depends, in part, on the factors which determine parole outcome. To the extent that they can be known prior to sentencing, parole board deliberations may be unnecessary. However, parole boards may have an important role to play if postsentence factors, e.g.,

disciplinary record, work record in prison, etc., influence parole success. However, the empirical analysis of the supervision phase suggested that some aspect of institutionalization - over and above time at risk - influenced parole termination. Given the current abolition controversy, an investigation of the comparative impacts of pre and postsentence attributes on parole outcome would appear essential.

In sum, the question of who should exercise discretionary power in the criminal justice system, e.g., parole, may be less important than how the decisions are rendered. Equality of consideration in a system where discretion is fundamental to the administration of justice necessitates the creation of structures which minimize unnecessary discretion while controlling that which is essential.

FOOTNOTES

1. Notwithstanding the fact that females were excluded from the analysis of the supervision model, the extremely small number of female failures suggests that, all other things being equal, parole officials are unlikely to exercise their discretionary power in such a manner as to return female parolees to prison.

2. It should be noted that the comparatively small number of natives in the selection and supervision samples makes the estimation of the effects of race difficult because the variation in the race variable will be small. Consequently, the statistically significant associations reported in the analysis suggest that the race-parole selection/supervision relationship is a meaningful one.

3. In fact, Table 8 reveals that race exerts a very small indirect effect on parole outcome via aggregate sentence (-.05). This suggests that natives receive somewhat longer sentences than whites and consequently, must submit to parole supervision for longer periods.

4. For the supervision sample as a whole, native parolees had completed less formal education, occupied lower socioeconomic positions, were more likely to be problem drinkers, and had poorer employment histories prior to incarceration than their white counterparts. To the extent that these factors affect the ability of natives to abide by the conditions of parole which stress employment and abstinence, it would appear that natives must confront a number of obstacles which could reduce the probability of successful completion. With reference to natives paroled from federal prisons, this situation would be exacerbated by their lengthy parole periods.

5. A number of these studies were outlined in chapter II.

6. A situation arises whenever a parolee is charged with a criminal offence. The "hopelessness" of a situation is directly related to the seriousness of the crime in that the latter constrains the officer's discretionary power. Only a few situations are

absolutely hopeless, e.g., murder and rape. Most are hopeless in degree and thus subject to negotiation.

7. These organizational constraints could account, in part, for the greater susceptibility of native parolees to revocation. When building a reputation for competence, selectivity is an important ingredient. The officer must decide which clients to defend and which to abandon. This decision is based on the officer's perception of the parolee's sincerity and trustworthiness. The cultural differences which exist between native parolees and white officers could produce communication problems and, consequently, contribute to mistrust. As a result, native clients could be viewed as less sincere or trustworthy and the officer would be more prepared to sacrifice these clients in order to preserve his reputation.

8. As an illustration, the parolees in the supervision sample were grouped by office of supervision and disparities in parole outcome were examined. A chi-square test revealed statistically significant differences (at the .05 level) between offices with reference to parole success or failure. This suggests that each office, given its personnel and work structure, may evolve a particular "decision culture" which officers use to gauge the seriousness of parole violations. Thus, the probability of revocation for a particular violation could vary appreciably from one parole office to another. In addition, the offices were grouped by geographical region. With the exception of the prairie region, there were no statistically significant differences although substantial parole outcome variation occurred within each region. Of course, these tests are crude in that they do not control for variations within the parolee population per se. However, they do hint at the possible value of adopting an organizational perspective with reference to decision-making in the parole system.

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APPENDIX A

Parole Certificate

The following is a typed copy of the parole certificate signed by inmates prior to their release and carried during the parole period.

INSTRUCTIONS

Pursuant to the conditions of your parole you must obey these instructions. Failure to do so may result in suspension and revocation of parole.

You must proceed directly to .....
and report to your Parole Supervisor .....
At .....

Representative _____ Parole Supervisor _____

ACKNOWLEDGEMENT

I understand that the parole certificate is the property of the National Parole Board and must be delivered on demand of the National Parole Board or of my supervisor. I also understand that I am still serving my term of imprisonment and that parole has been granted to allow me to resume my activities as a citizen at large in the community under supervision.

I fully understand and accept all the conditions (including the conditions printed overleaf), regulations and restrictions governing my release on parole. I will abide and conform to them strictly. I also understand that if I violate them I may be recommitted.

Certificate Dated	Released on -	Paroled Inmate -
	Witness -	Date

REPORTS TO POLICE				VISITS TO SUPERVISOR			
Initials	Date	Initials	Date	Initials	Date	Initials	Date

CONDITIONS OF PAROLE

1. To remain until expiry of sentence under the authority of the designated Representative of the National Parole Board.
2. To proceed forthwith directly to the area as designated in the instructions and, immediately upon arrival report to the Parole Supervisor and after to the Police as instructed by the Supervisor.
3. To remain in the immediate designated area and not to leave this area without obtaining permission beforehand from the Representative of the National Parole Board, through the Parole Supervisor.
4. To endeavour to maintain steady employment and to report at once to the Parole Supervisor any change or termination of employment or any other change of circumstances such as accident or illness.
5. To obtain approval from the Representative of the National Parole Board, through the Parole Supervisor before:
   (a) purchasing of motor vehicle;
   (b) incurring debts by borrowing money or instalment buying;
   (c) assuming additional responsibilities, such as marrying;
   (d) owning or carrying fire-arms or other weapons.
6. To communicate forthwith with the Parole Supervisor or the Representative of the National Parole Board if arrested or questioned by police regarding any offence.
7. To obey the law and fulfill all legal and social responsibilities.

APPENDIX B

Parole Applications, Paroles Granted and Parole Grant Rates (1959-1976)

Year	No. Applications	No. Paroles Granted	% Grant Rate
1959	4803	2013	42%
1960	6043	2449	41%
1961	6794	2199	32%
1962	5940	1766	30%
1963	6089	1712	28%
1964	6362	1677	26%
1965	6736	2487	37%
1966	6110	2560	42%
1967	6359	2953	46%
1968	6822	3471	51%
1969	7113	4524	64%
1970	8003	5312	66%
1971	8266	5099	62%
1972	7607	3713	49%
1973	7344	2882	39%
1974	6753	3255	48%
1975	6709	2732	41%
1976	6926	2317	33%

Note: % Grant Rate -- that proportion of applications granted parole.

Applications = all those granted, denied, or deferred parole.

Source: prepared by National Parole Service, Ottawa.

APPENDIX C

APPENDIX C

TABLE C.1

PAROLE SELECTION: CORRELATION COEFFICIENTS

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}	X_{18}	X_{19}	X_{20}	X_{21}	X_{22}
X_1	--	.06	-.04	.20	-.08	.09	.21	-.17	.08	-.07	.04	-.11	.03	-.11	-.12	.08	.06	.00	-.24	.20	.07	.05
X_2		--	-.06	.03	-.26	.22	-.07	.18	.33	.34	-.09	.16	-.03	.08	.06	-.01	-.10	.00	.20	-.10	-.01	-.04
X_3			--	-.14	.03	-.24	-.31	.15	-.04	-.02	.01	-.11	.06	-.02	.14	-.08	-.12	-.01	-.02	.05	-.13	-.12
X_4				--	-.16	.45	.21	-.17	.09	.02	-.03	.05	-.02	-.02	-.15	.04	.13	.05	-.11	.08	-.02	.02
X_5					--	-.16	-.04	-.04	-.11	-.13	.11	-.21	.04	-.06	.05	.05	-.01	-.12	.01	.04	-.09	-.07
X_6						--	.18	-.05	-.01	-.02	.07	.30	-.03	-.06	-.10	.07	.13	-.02	-.08	.05	.06	.04
X_7							--	-.22	.01	-.04	.04	-.03	-.02	.01	-.19	.13	.13	-.05	-.13	.08	.09	.09
X_8								--	-.02	.02	.09	.11	-.03	.05	.20	.08	-.38	-.09	.14	-.07	.16	.16
X_9									--	.43	-.37	-.22	.12	-.08	-.12	-.02	-.14	.27	.19	-.19	-.21	-.17
X_{10}										--	-.43	-.13	.08	-.07	-.10	-.08	-.11	.31	.22	-.30	-.16	-.15
X_{11}											--	.12	-.12	.12	.12	.29	.07	-.63	-.17	.31	.21	.17
X_{12}												--	-.13	.09	.06	.01	.05	-.05	-.06	.09	.22	.21
X_{13}													--	-.05	-.14	-.26	-.07	-.10	.14	-.17	-.11	-.07
X_{14}														--	-.10	-.19	-.05	-.07	.12	-.05	.07	.08
X_{15}															--	-.48	-.13	-.19	.25	-.09	.03	.05
X_{16}																--	-.26	-.37	-.29	.22	.04	.01
X_{17}																	--	-.10	-.15	.23	.13	.08
X_{18}																		--	.09	-.24	-.14	-.14
X_{19}																			--	-.62	-.02	.04
X_{20}																				--	.03	-.04
X_{21}																					--	.88
X_{22}																						--

TABLE C.2

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable									
	(1) X_7	(2) X_8	(3) X_8	(4) X_9	(5) X_9	(6) X_9	(7) X_{10}	(8) X_{10}	(9) X_{10}	(10) X_{10}
X_1	.18***	-.15**	-.13*	.04	.04	.03	-.10*	-.10*	-.11*	-.12**
X_2	-.12**	.20**	.18***	.36***	.36***	.37***	.38***	.38***	.39***	.26***
X_3	-.27***	.14**	.11*	-.03	-.02	-.02	-.02	-.02	-.01	-.01
X_4	.09	-.14*	-.12*	.14**	.14*	.13*	.08	.08	.07	.03
X_5	-.03	-.12	-.03	-.02	-.01	-.02	-.05	-.05	-.05	-.05
X_6	.09	.01	.02	-.16**	-.17**	-.16**	-.14**	-.14**	-.14**	-.09
X_7			-.12*		.02	.02		.01	.01	.00
X_8						-.07			-.06	-.04
X_9										.34***

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE C.3

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable										
	(11) X_{11}	(12) X_{11}	(13) X_{11}	(14) X_{11}	(15) X_{11}	(16) X_{12}	(17) X_{12}	(18) X_{12}	(19) X_{12}	(20) X_{12}	(21) X_{12}
X_1	.05	.05	.07	.08	.03	-.13**	-.12*	-.11*	-.10*	-.12*	-.12*
X_2	-.09	-.09	-.11*	.03	.11*	.05	.04	.03	.13*	.16**	.16*
X_3	.03	.04	.02	.02	.02	-.05	-.07	-.08	-.08	-.08	-.09
Y_4	-.08	-.08	-.07	-.02	-.01	-.09	-.09	-.08	-.04	-.04	-.04
X_5	.10*	.11*	.11*	.10*	.09	-.17***	-.17***	-.17***	-.18***	-.18***	-.18***
X_6	.14*	.14*	.14*	.08	.05	.31***	.31***	.31***	.27***	.25***	.25***
X_7		.03	.05	.05	.05		-.07	-.06	-.06	-.06	-.06
X_8			.12*	.10*	.09			.08	.06	.05	.05
Y_9				-.37***	-.25***				-.27***	-.23***	-.23***
X_{10}					-.34***					-.13*	-.12*
X_{11}											.01

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE C.4

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variable	Equation and Dependent Variable													
	(22) X_{13}	(23) X_{13}	(24) X_{13}	(25) X_{13}	(26) X_{13}	(27) X_{13}	(28) X_{13}	(29) X_{14}	(30) X_{14}	(31) X_{14}	(32) X_{14}	(33) X_{14}	(34) X_{14}	(35) X_{14}
X_1	.04	.04	.04	.03	.04	.04	.03	-.12*	-.13*	-.12*	-.12*	-.13*	-.14*	-.13*
X_2	-.02	-.02	-.01	-.07	-.09	-.08	-.07	.09	.10	.09	.14*	.17**	.16**	.15**
X_3	.06	.05	.06	.06	.06	.06	.05	-.03	-.02	-.02	-.03	-.03	-.03	-.02
X_4	-.01	-.01	-.01	-.03	-.04	-.04	-.04	.03	.03	.03	.05	.05	.05	.06
X_5	.04	.04	.03	.04	.04	.05	.03	-.06	-.05	-.05	-.06	-.06	-.07	-.06
X_6	-.01	-.01	-.01	.02	.02	.03	.05	-.10	-.10	-.10	-.12*	-.13*	-.14*	-.15*
X_7		-.01	-.02	-.02	-.02	-.01	-.02		.04	.05	.05	.05	.05	.05
X_8			-.03	-.02	-.02	-.01	.00			.03	.02	.01	.00	.00
X_9				.05**	.13*	.11	.09				-.13*	-.09	-.07	-.06
X_{10}					.07	.04	.03					-.11*	-.08	-.08
X_{11}						-.08	-.08						.09	.09
X_{12}							-.08							.04

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.

TABLE C.5

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable													
	(36) X_{15}	(37) X_{15}	(38) X_{15}	(39) X_{15}	(40) X_{15}	(41) X_{15}	(42) X_{15}	(43) X_{16}	(44) X_{16}	(45) X_{16}	(46) X_{16}	(47) X_{16}	(48) X_{16}	(49) X_{16}
X_1	-.10*	-.08	-.06	-.06	-.07	-.07	-.07	.07	.06	.07	.07	.07	.05	.05
X_2	.09	.08	.06	.11*	.14*	.13*	.13*	-.01	.00	-.03	-.02	.00	-.04	-.04
X_3	.12*	.09	.07	.07	.07	.07	.07	-.06	-.04	-.05	-.05	-.05	-.06	-.06
X_4	-.09	-.08	-.06	-.04	-.04	-.04	-.04	.00	.00	.01	.02	.02	.02	.02
X_5	.05	.04	.05	.05	.04	.04	.04	.06	.06	.07	.07	.06	.04	.03
X_6	-.04	-.03	-.04	-.06	-.07	-.07	-.08	.06	.05	.05	.04	.04	.02	.02
X_7		-.12*	-.10	-.10	-.10	-.10	-.10		.10	.12*	.12*	.12*	.10	.10
X_8			.14**	.13*	.12*	.12*	.12*			.14**	.14**	.14*	.11*	.11*
X_9				-.14**	-.10	-.10	-.09				-.02	.00	.09	.09
X_{10}					-.11	-.09	-.09					-.07	.03	.03
X_{11}						.05	.05						.31***	.31***
X_{12}							.02							-.01

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE C.6

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable													
	(50) X_{17}	(51) X_{17}	(52) X_{17}	(53) X_{17}	(54) X_{17}	(55) X_{17}	(56) X_{17}	(57) X_{18}	(58) X_{18}	(59) X_{18}	(60) X_{18}	(61) X_{18}	(62) X_{18}	(63) X_{18}
X_1	.04	.03	-.02	-.01	-.02	-.02	-.02	-.02	.00	-.02	-.03	.00	.02	.03
X_2	-.13**	-.13*	-.06	.00	.01	.00	.00	-.02	-.03	-.01	-.12*	-.19***	-.13**	-.14**
X_3	-.09	-.07	-.04	-.04	-.04	-.04	-.04	-.02	-.03	-.02	-.02	-.02	-.01	.00
X_4	.06	.05	.01	.03	.03	.03	.03	.06	.07	.06	.02	.01	.01	.01
X_5	-.01	-.01	-.02	-.02	-.02	-.02	-.02	-.13*	-.13*	-.13*	-.13*	-.11	-.06	-.05
X_6	.11	.10	.11*	.08	.08	.08	.07	-.07	-.06	-.06	-.01	.01	.04	.03
X_7		.07	.02	.03	.03	.02	.03		-.07	-.08	-.09	-.09	-.06	-.05
X_8			-.35***	-.36***	-.36***	-.37***	-.37***			-.11*	-.09	-.08	-.03	-.03
X_9				-.16**	-.14*	-.13*	-.13*				.30***	.21***	.06	.07
X_{10}					-.05	-.03	-.03					.28***	.08	.08
X_{11}						.04	.04						-.58***	-.58***
X_{12}							.02							.06

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE C.7

PAROLE SELECTION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable								
	(64) X_{19}	(65) X_{19}	(66) X_{19}	(67) X_{19}	(68) X_{19}	(69) X_{19}	(70) X_{19}	(71) X_{19}	(72) X_{20}
X_1	-.24***	-.23***	-.22***	-.23***	-.21***	-.21***	-.22***	-.19***	--
X_2	.25***	.24***	.23**	.17**	.15**	.16**	.17**	.13*	--
X_3	-.04	-.06	-.06	-.06	-.06	-.06	-.06	-.09	--
X_4	-.01	-.01	.00	-.02	-.03	-.03	-.03	-.02	--
X_5	.04	.04	.04	.04	.05	.06	.04	.04	--
X_6	-.11*	-.10	-.11	-.08	-.07	-.07	-.05	-.02	--
X_7		-.06	-.06	-.06	-.06	-.05	-.06	-.03	--
X_8			.05	.06	.07	.07	.08	.04	--
X_9				.16**	.12*	.10	.09	.10	--
X_{10}					.10	.07	.06	.09	--
X_{11}						-.08	-.08	-.04	--
X_{12}							-.06	-.06	--
X_{13}								.13	--
X_{14}								.12	--
X_{15}								.22	--
X_{16}								-.10	--
X_{17}								-.06	--
X_{18}								.03	--
X_{19}									-.62***

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE C.8

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	Indirect Effects Via X_8	Indirect Effects Via X_9	Direct Effect
X_7	X_1	.18	--	--	--	.18
	X_2	-.12	--	--	--	-.12
	X_3	-.27	--	--	--	-.27
	X_4	.09	--	--	--	.09
	X_5	-.03	--	--	--	-.03
	X_6	.09	--	--	--	.09
X_8	X_1	-.15	-.02	--	--	-.13
	X_2	.20	.02	--	--	.18
	X_3	.14	.03	--	--	.11
	X_4	-.14	-.02	--	--	-.12
	X_5	-.02	.01	--	--	-.03
	X_6	.01	-.01	--	--	.02
	X_7	-.12	--	--	--	-.12
X_9	X_1	.04	.00	.01	--	.03
	X_2	.36	.00	-.01	--	.37
	X_3	-.03	-.01	.00	--	-.02
	X_4	.14	.00	.01	--	.13
	X_5	-.02	-.01	-.01	--	-.02
	X_6	-.16	.01	-.01	--	-.16
	X_7	.02	--	.00	--	.02
	X_8	-.07	--	--	--	-.07

TABLE C.9

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	X_8	X_9	X_{10}	X_{11}	Direct Effect
X_{10}	X_1	-.10	.00	.01	.01	--	--	-.12
	X_2	.38	.00	-.01	.13	--	--	.26
	X_3	-.02	.00	-.01	.00	--	--	-.01
	X_4	.08	.00	.01	.04	--	--	.03
	X_5	-.05	.00	.00	.00	--	--	-.05
	X_6	-.14	.00	.00	-.05	--	--	-.09
	X_7	.01	--	.00	.01	--	--	.00
	X_8	-.06	--	--	-.02	--	--	-.04
	X_9	.34	--	--	--	--	--	.34
X_{11}	X_1	.05	.00	-.02	-.01	.05	--	.03
	X_2	-.09	.00	.02	-.14	-.08	--	.11
	X_3	.03	-.01	.02	.00	.00	--	.02
	X_4	-.08	.00	-.01	-.05	-.01	--	-.01
	X_5	.10	-.01	.00	.01	.01	--	.09
	X_6	.14	.00	.00	.06	.03	--	.05
	X_7	.03	--	-.02	.00	.00	--	.05
	X_8	.12	--	--	.02	.01	--	.09
	X_9	-.37	--	--	--	-.12	--	-.25
	X_{10}	-.34	--	--	--	--	--	-.34

TABLE C.10

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	Direct Effect
X_{12}	X_1	-.13	-.01	-.01	-.01	.02	.00	--	--	-.12
	X_2	.05	.01	.01	-.10	-.03	.00	--	--	.16
	X_3	-.05	.02	.01	.00	.00	.01	--	--	-.09
	X_4	-.09	.00	-.01	-.04	.00	.00	--	--	-.04
	X_5	-.17	.00	.00	.01	.00	.00	--	--	-.18
	X_6	.31	.00	.00	.04	.02	.00	--	--	.25
	X_7	-.07	--	-.01	.00	.00	.00	--	--	-.06
	X_8	.08	--	--	.02	.01	.00	--	--	.05
	X_9	-.27	--	--	--	-.04	.00	--	--	-.23
	X_{10}	-.13	--	--	--	--	-.01	--	--	-.12
	X_{11}	.01	--	--	--	--	--	--	--	.01
X_{13}	X_1	.04	.00	.00	.01	-.01	.00	.01	--	.03
	X_2	-.02	.00	-.01	.06	.02	-.01	-.01	--	-.07
	X_3	.06	.01	-.01	.00	.00	.00	.01	--	.05
	X_4	-.01	.00	.00	.02	.01	.00	.00	--	-.04
	X_5	.04	.00	.01	-.01	.00	-.01	.02	--	.03
	X_6	-.01	.00	.00	-.03	.00	-.01	-.02	--	.05
	X_7	-.01	--	.01	.00	.00	-.01	.01	--	-.02
	X_8	-.03	--	--	-.01	.00	-.01	-.01	--	.00
	X_9	.15	--	--	--	.02	.02	.02	--	.09
	X_{10}	.07	--	--	--	--	.03	.01	--	.03
	X_{11}	-.08	--	--	--	--	--	.00	--	-.08
	X_{12}	-.08	--	--	--	--	--	--	--	-.08

TABLE C.11

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effect Via X_7	X_8	X_9	X_{10}	Y_{11}	X_{12}	Direct Effect
X_{14}	X_1	-.12	.01	-.01	.00	.01	.01	-.01	-.13
	X_2	.09	-.01	.01	-.05	-.03	.01	.01	.15
	X_3	-.03	-.01	.00	.01	.00	.00	-.01	-.02
	X_4	.03	.00	.00	-.02	.00	.00	-.01	.06
	X_5	-.06	-.01	.00	.01	.00	.01	-.01	-.06
	X_6	-.10	.00	.00	.02	.01	.01	.01	-.15
	X_7	.04	--	-.01	.00	.00	.00	.00	.05
	X_8	.03	--	--	.01	.01	.01	.00	.00
	X_9	-.13	--	--	--	-.04	-.02	-.01	-.06
	X_{10}	-.11	--	--	--	--	-.03	.00	-.08
	X_{11}	.09	--	--	--	--	--	.00	.09
	X_{12}	.04	--	--	--	--	--	--	.04
X_{15}	X_1	-.10	-.02	-.02	.00	.01	.00	.00	-.07
	X_2	.09	.01	.02	-.05	-.03	.01	.00	.13
	X_3	.12	.03	.02	.00	.00	.00	.00	.07
	X_4	-.09	-.01	-.02	-.02	.00	.00	.00	-.04
	X_5	.05	.01	-.01	.00	.01	.00	.00	.04
	X_6	-.04	-.01	.01	.02	.01	.00	.01	-.08
	X_7	-.12	--	-.02	.00	.00	.00	.00	-.10
	X_8	.14	--	--	.01	.01	.00	.00	.12
	X_9	-.14	--	--	--	-.04	.00	-.01	-.09
	X_{10}	-.11	--	--	--	--	-.02	.00	-.09
	X_{11}	.05	--	--	--	--	--	.00	.05
	X_{12}	.02	--	--	--	--	--	--	.02

TABLE C.12

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	Direct Effect
X_{16}	X_1	.07	.01	-.01	.00	.00	.02	.00	.05
	X_2	-.01	-.01	.03	-.01	-.02	-.04	.00	-.04
	X_3	-.06	-.02	.01	.00	.00	.01	.00	-.06
	X_4	.00	.00	.01	-.01	.00	.00	.00	.02
	X_5	.06	.00	-.01	.00	.01	.02	.01	.03
	X_6	.06	.01	.00	.01	.00	.02	.00	.02
	X_7	.10	--	-.02	.00	.00	.02	.00	.10
	X_8	.14	--	--	.00	.00	.03	.00	.11
	X_9	-.02	--	--	--	-.02	.09	.00	.09
	X_{10}	-.07	--	--	--	--	-.10	.00	.03
	X_{11}	.31	--	--	--	--	--	.00	.31
	X_{12}	-.01	--	--	--	--	--	--	-.01
X_{17}	X_1	.04	.01	.05	-.01	-.01	.00	.00	-.02
	X_2	-.13	.00	-.07	-.06	-.01	.01	.00	.00
	X_3	-.09	-.02	-.03	.00	.00	.00	.00	-.04
	X_4	.06	.01	.04	-.02	.00	.00	.00	.03
	X_5	-.01	.00	.01	.00	.00	.00	.00	-.02
	X_6	.11	.01	-.01	.03	.00	.00	.01	.07
	X_7	.07	--	.05	-.01	.00	.01	-.01	.03
	X_8	-.35	--	--	.01	.00	.01	.00	-.37
	X_9	-.16	--	--	--	-.02	-.01	.00	-.13
	X_{10}	-.05	--	--	--	--	-.02	.00	-.03
	X_{11}	.04	--	--	--	--	--	.00	.04
	X_{12}	.02	--	--	--	--	--	--	.02

TABLE C.13

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	Direct Effect
X_{18}	X_1	-.02	-.02	-.02	.01	-.03	.02	-.01	.03
	X_2	-.02	.01	-.02	.11	.07	-.06	.01	-.14
	X_3	-.02	.01	-.01	.00	.00	-.01	-.01	.00
	X_4	.06	-.01	.01	.04	.01	.00	.00	.01
	X_5	-.13	.00	.00	.00	-.02	-.05	-.01	-.05
	X_6	-.07	-.01	.00	-.05	-.01	-.03	.01	.03
	X_7	-.07	--	.01	.01	.00	-.03	-.01	-.05
	X_8	-.11	--	--	-.02	-.01	-.05	.00	-.03
	X_9	.30	--	--	--	.09	.15	-.01	.07
	X_{10}	.28	--	--	--	--	.20	.00	.08
	X_{11}	-.58	--	--	--	--	--	.00	-.58
	X_{12}	.06	--	--	--	--	--	--	.06

TABLE C.14

PAROLE SELECTION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13} to X_{18}	Direct Effect
X_{19}	X_1	-.24	.01	-.01	.01	-.02	.00	.01	-.03	-.19
	X_2	.25	.01	.01	.06	.02	-.01	-.01	.04	.13
	X_3	-.04	.02	.00	.00	.00	.00	.00	.03	-.09
	X_4	-.01	.00	-.01	-.02	.01	.00	.00	-.01	-.02
	X_5	.04	.00	.00	.00	-.01	-.01	.02	.00	.04
	X_6	-.11	-.01	.01	-.03	-.01	.00	-.02	-.03	-.02
	X_7	-.06	--	.00	.00	.00	-.01	.01	-.03	-.03
	X_8	.05	--	--	-.01	-.01	.00	-.01	.04	.04
	X_9	.16	--	--	--	.04	.02	.01	-.01	.10
	X_{10}	.10	--	--	--	--	.03	.01	-.03	.09
	X_{11}	-.08	--	--	--	--	--	.00	-.04	-.04
	X_{12}	-.06	--	--	--	--	--	--	.00	-.06
	X_{13}	.13	--	--	--	--	--	--	--	.13
	X_{14}	.12	--	--	--	--	--	--	--	.12
	X_{15}	.22	--	--	--	--	--	--	--	.22
	X_{16}	-.10	--	--	--	--	--	--	--	-.10
	X_{17}	-.06	--	--	--	--	--	--	--	-.06
	X_{18}	.03	--	--	--	--	--	--	--	.03
X_{20}	X_{19}	-.62	--	--	--	--	--	--	--	-.62

APPENDIX D

APPENDIX D

TABLE D.1

PAROLE SUPERVISION: CORRELATION COEFFICIENTS

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}	X_{18}	X_{19}	X_{20}
X_1	--	-.16	-.03	-.35	.16	.00	.17	.19	.17	-.04	.32	-.04	.26	.02	.01	-.16	-.02	.15	-.15	-.02
X_2		--	-.18	.01	-.29	-.33	.15	.08	.12	.04	-.25	.02	.12	.23	-.15	-.15	.07	-.04	.02	.14
X_3			--	.07	.54	.19	-.13	-.05	-.16	.06	.28	-.08	-.09	-.21	.03	.37	-.15	-.19	.17	-.09
X_4				--	.00	.10	-.12	-.08	-.02	.06	-.11	-.08	-.18	.00	-.05	.13	.08	.02	-.04	.05
X_5					--	.25	-.02	-.16	-.11	.08	.45	-.04	-.15	-.04	-.05	.24	-.06	.00	-.08	-.13
X_6						--	-.08	-.13	-.08	.02	.14	.04	-.18	-.22	.12	.21	-.01	-.09	.18	-.10
X_7							--	.06	.11	-.05	.07	.01	.04	.03	.29	-.57	.07	.02	-.02	-.01
X_8								--	.53	-.38	-.20	.04	-.03	.12	-.06	.16	.17	.29	-.20	.32
X_9									--	-.21	-.13	.05	-.06	.07	-.07	-.11	.22	.27	-.12	.16
X_{10}										--	.12	.03	.07	.10	.06	.11	-.53	-.22	.24	-.19
X_{11}											--	-.08	-.06	-.01	-.01	.09	-.06	-.08	.00	-.14
X_{12}												--	-.03	-.05	-.14	-.04	-.03	.03	.00	.05
X_{13}													--	-.10	-.24	-.08	-.06	.04	.01	.09
X_{14}														--	-.52	-.17	-.12	.30	-.14	.14
X_{15}															--	-.43	-.30	-.27	.12	-.09
X_{16}																--	-.10	-.09	.24	-.17
X_{17}																	--	.16	-.31	.07
X_{18}																		--	-.52	.41
X_{19}																			--	-.44
X_{20}																				--

TABLE D.2

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable									
	(1) X_6	(2) X_7	(3) X_7	(4) X_8	(5) X_8	(6) X_8	(7) X_9	(8) X_9	(9) X_9	(10) X_9
X_1	-.03	.16*	.16*	.24***	.23***	.23***	.22***	.22***	.22**	.10
X_2	-.28***	.18**	.18**	.06	.04	.04	.12	.12	.11	.09
X_3	.05	-.14	-.14	.10	.10	.10	-.10	-.10	-.09	-.15*
X_4	.09	-.06	-.06	-.01	.00	.00	.07	.07	.07	.07
X_5	.14*	.09	.09	-.24**	-.22**	-.23**	-.06	-.06	-.06	.05
X_6			-.01		-.08	-.08		-.02	-.02	.02
X_7						.02			.05	.04
X_8										.51

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.3

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable										
	(11) X_{10}	(12) X_{10}	(13) X_{10}	(14) X_{10}	(15) X_{10}	(16) X_{11}	(17) X_{11}	(18) X_{11}	(19) X_{11}	(20) X_{11}	(21) X_{11}
X_1	-.02	-.02	-.02	.07	.08	.25***	.25***	.24***	.29***	.29***	.29***
X_2	.06	.07	.08	.09	.09	-.10	-.10	-.11	-.10	-.10	-.10
X_3	.02	.02	.01	.05	.05	.10	.10	.11	.13*	.12	.12
X_4	.05	.05	.05	.05	.05	-.03	-.03	-.02	-.02	-.02	-.02
X_5	.09	.09	.10	.01	.01	.33***	.33***	.32***	.27***	.28***	.28***
X_6		.01	.01	-.02	-.02		.01	.02	.00	.00	.00
X_7			-.05	-.04	-.04			.07	.07	.07	.07
X_8				-.39***	-.37***				-.20***	-.18**	-.17*
X_9					-.03					-.02	-.02
X_{10}											.04

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.4

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable												
	(22) X_{12}	(23) X_{12}	(24) X_{12}	(25) X_{12}	(26) X_{12}	(27) X_{12}	(28) X_{12}	(29) X_{13}	(30) Y_{13}	(31) X_{13}	(32) X_{13}	(33) X_{13}	(34) X_{13}	(35) X_{13}
X_1	-.08	-.08	-.08	-.09	-.09	-.10	-.08	.28***	.28***	.28***	.32***	.33***	.32***	.36***
X_2	.00	.01	.01	.01	.01	.00	.00	.12*	.09	.10	.11	.11	.11	.10
X_3	-.08	-.09	-.09	-.09	-.09	-.09	-.08	.04	.05	.04	.06	.05	.04	.06
Y_4	-.10	-.10	-.10	-.10	-.10	-.11	-.11	-.09	-.08	-.08	-.08	-.07	-.07	-.08
Y_5	.02	.01	.01	.02	.02	.02	.04	-.18*	-.16*	-.16	-.20**	-.19*	-.19*	-.15*
X_6		.07	.07	.07	.07	.07	.07		-.11	-.11	-.12	-.12	-.12	-.12
X_7			.00	.00	.00	.00	.01			-.03	-.03	-.03	-.03	-.02
Y_8				.06	.04	.06	.05				-.15*	-.10	-.08	-.11
Y_9					.03	.03	.03					-.10	-.10	-.10
Y_{10}						.07	.07						.05	.05
X_{11}							-.07							-.13

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.5

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable													
	(36) X_{14}	(37) X_{14}	(38) X_{14}	(39) X_{14}	(40) X_{14}	(41) X_{14}	(42) X_{14}	(43) X_{15}	(44) X_{15}	(45) X_{15}	(46) X_{15}	(47) X_{15}	(48) X_{15}	(49) X_{15}
X_1	.04	.03	.04	.01	.02	.01	-.02	-.02	-.02	-.07	-.06	-.05	-.06	-.04
X_2	.23***	.19**	.20**	.19**	.20**	.18**	.19**	-.18**	-.15*	-.22***	-.21**	-.21**	-.22***	-.22***
X_3	-.25***	-.24***	-.25***	-.26***	-.27***	-.28***	-.29***	.08	.07	.12	.13	.12	.12	.13
X_4	.02	.04	.04	.04	.04	.03	.03	-.06	-.07	-.05	-.05	-.05	-.05	-.06
X_5	.16*	.19*	.19*	.22**	.22**	.22**	.19*	-.14	-.15*	-.19*	-.20**	-.20**	-.20**	-.18*
X_6		-.17**	-.17**	-.16*	-.16*	-.15*	-.15*		.11	.11	.11	.11	.11	.11
X_7			-.05	-.05	-.05	-.04	-.05			.35***	.35***	.36***	.36***	.36***
X_8				.11	.13	.19**	.21**				-.07	-.05	-.02	-.04
X_9					-.05	-.04	-.04					-.04	-.04	-.04
X_{10}						.16*	.16*						.08	.08
X_{11}							.08							-.08

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.6

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable												
	(50) X_{16}	(51) X_{16}	(52) X_{16}	(53) X_{16}	(54) X_{16}	(55) X_{16}	(56) X_{16}	(57) X_{17}	(58) X_{17}	(59) X_{17}	(60) X_{17}	(61) X_{17}	(62) X_{17}	(63) X_{17}
X_1	-.16*	-.15*	-.07	-.05	-.05	-.06	-.07	.01	.01	.00	-.05	-.06	-.02	-.04
X_2	-.10	-.06	.03	.03	.02	.02	.02	.05	.05	.04	.04	.02	.07	.08
X_3	.30***	.30***	.22***	.23***	.24***	.24***	.24***	-.17*	-.17*	-.16*	-.18*	-.16*	-.13*	-.14*
X_4	.05	.04	.01	.01	.01	.01	.01	.10	.10	.10	.10	.09	.12*	.12*
X_5	.07	.05	.10	.08	.08	.08	.07	.04	.04	.03	.08	.07	.08	.06
X_6		.12	.11*	.11*	.10*	.11*	.11*		.02	.02	.03	.03	.02	.02
X_7			-.52***	-.52***	-.52***	-.52***	-.52***			.06	.05	.05	.03	.02
X_8				-.08	-.11*	-.10	-.10				.19**	.12	-.09	-.08
X_9					.07	.07	.07					.15*	.13*	.13*
X_{10}						.04	.03						-.54***	-.55***
X_{11}							.02							.01

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.7

PAROLE SUPERVISION: ESTIMATED COEFFICIENTS OF REGRESSION EQUATIONS

Predetermined Variables	Equation and Dependent Variable								
	(64) X_{18}	(65) Y_{18}	(66) X_{18}	(67) X_{18}	(68) X_{18}	(69) X_{18}	(70) X_{18}	(71) Y_{18}	(72) X_{19}
X_1	.15*	.14*	.15*	.08	.07	.08	.10	.07	--
Y_2	-.03	-.05	-.05	-.06	-.07	-.06	-.06	-.14*	--
X_3	-.26***	-.26***	-.26***	-.29***	-.27***	-.27***	-.26***	-.17*	--
X_4	.09	.10	.10	.10	.09	.09	.09	.09	--
X_5	.12	.13	.13	.20**	.19**	.19**	.21**	.16*	--
X_6		-.10	-.10	-.07	-.08	-.08	-.08	-.02	--
X_7			-.03	-.03	-.04	-.04	-.04	.00	--
X_8				.29***	.23***	.18**	.17*	.13	--
X_9					.12	.12	.12	.13	--
X_{10}						-.13*	-.12*	-.15*	--
Y_{11}							-.06	-.08	--
X_{12}								.01	--
X_{13}								.06	--
X_{14}								.20	--
Y_{15}								-.15	--
X_{16}								-.06	--
Y_{17}								-.01	--
X_{18}									-.52***

* Statistically significant at the .05 level.
** Statistically significant at the .01 level.
*** Statistically significant at the .001 level.

TABLE D.8

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_6	Indirect Effects Via X_7	Indirect Effects Via X_8	Direct Effect
X_6	X_1	-.03	--	--	--	-.03
	X_2	-.28	--	--	--	-.28
	X_3	.05	--	--	--	.05
	X_4	.09	--	--	--	.09
	X_5	.14	--	--	--	.14
X_7	X_1	.16	.00	--	--	.16
	X_2	.18	.00	--	--	.18
	X_3	-.14	.00	--	--	-.14
	X_4	-.06	.00	--	--	-.06
	X_5	.09	.00	--	--	.09
	X_6	-.01	--	--	--	-.01
X_8	X_1	.24	.01	.00	--	.23
	X_2	.06	.02	.00	--	.04
	X_3	.10	.00	.00	--	.10
	X_4	-.01	-.01	.00	--	.00
	X_5	-.24	-.02	.01	--	-.23
	X_6	-.08	--	.00	--	-.08
	X_7	.02	--	--	--	.02

TABLE D.9

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_6	X_7	X_8	X_9	Direct Effect
X_9	X_1	.22	.00	.00	.12	--	.10
	X_2	.12	.00	.01	.02	--	.09
	X_3	-.10	.00	-.01	.06	--	-.15
	X_4	.07	.00	.00	.00	--	.07
	X_5	-.06	.00	.00	-.11	--	.05
	X_6	-.02	--	.00	-.04	--	.02
	X_7	.05	--	--	.01	--	.04
	X_8	.51	--	--	--	--	.51
X_{10}	X_1	-.02	.00	.00	-.09	-.01	.08
	X_2	.06	-.01	-.01	-.01	.00	.09
	X_3	.02	.00	.01	-.04	.00	.05
	X_4	.05	.00	.00	.00	.00	.05
	X_5	.09	.00	-.01	.09	.00	.01
	X_6	.01	--	.00	.03	.00	-.02
	X_7	-.05	--	--	-.01	.00	-.04
	X_8	-.39	--	--	--	-.02	-.37
	X_9	-.03	--	--	--	--	-.03

TABLE D.10

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_6	X_7	X_8	X_9	X_{10}	Y_{11}	Direct Effect
X_{11}	X_1	.25	.00	.01	-.05	.00	.00	--	.29
	X_2	-.10	.00	.01	-.01	.00	.00	--	-.10
	Y_3	.10	.00	-.01	-.02	.01	.00	--	.12
	X_4	-.03	.00	-.01	.00	.00	.00	--	-.02
	X_5	.33	.00	.01	.05	-.01	.00	--	.28
	Y_6	.01	--	-.01	.02	.00	.00	--	.00
	X_7	.07	--	--	.00	.00	.00	--	.07
	X_8	-.20	--	--	--	-.02	-.01	--	-.17
	Y_9	-.02	--	--	--	--	.00	--	-.02
	X_{10}	.04	--	--	--	--	--	--	.04
X_{12}	Y_1	-.08	.00	.00	.01	.00	.01	-.02	-.08
	X_2	.00	-.01	.00	.00	.00	.01	.00	.00
	X_3	-.08	.01	.00	.00	.00	.00	-.01	-.08
	X_4	-.10	.00	.00	.00	.00	.01	.00	-.11
	X_5	.02	.01	.00	-.01	.00	.00	-.02	.04
	X_6	.07	--	.00	.00	.00	.00	.00	.07
	Y_7	.00	--	--	.00	.00	.00	-.01	.01
	X_8	.06	--	--	--	.02	-.02	.01	.05
	X_9	.03	--	--	--	--	.00	.00	.03
	X_{10}	.07	--	--	--	--	--	.00	.07
	Y_{11}	-.07	--	--	--	--	--	--	-.07

TABLE D.11

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effect Via X_6	X_7	X_8	X_9	X_{10}	X_{11}	Direct Effect
X_{13}	X_1	.28	.00	.00	-.04	-.01	.01	-.04	.36
	X_2	.12	.03	-.01	-.01	.00	.00	.01	.10
	X_3	.04	-.01	.01	-.02	.01	.01	-.02	.06
	X_4	-.09	-.01	.00	.00	-.01	.00	.01	-.08
	X_5	-.18	-.02	.00	.04	-.01	.00	-.04	-.15
	X_6	-.11	--	.00	.01	.00	.00	.00	-.12
	X_7	-.03	--	--	.00	.00	.00	-.01	-.02
	X_8	-.15	--	--	--	-.05	-.02	.03	-.11
	X_9	-.10	--	--	--	--	.00	.00	-.10
	X_{10}	.05	--	--	--	--	--	.00	.05
	X_{11}	-.13	--	--	--	--	--	--	-.13
X_{14}	X_1	.04	.01	-.01	.03	-.01	.01	.03	-.02
	X_2	.23	.04	-.01	.01	-.01	.02	-.01	.19
	X_3	-.25	-.01	.01	.01	.01	.01	.01	-.29
	X_4	.02	-.02	.00	.00	.00	.01	.00	.03
	X_5	.16	-.03	.00	-.03	.00	.00	.03	.19
	X_6	-.17	--	.00	-.01	.00	-.01	.00	-.15
	X_7	-.05	--	--	.00	.00	-.01	.01	-.05
	X_8	.11	--	--	--	-.02	-.06	-.02	.21
	X_9	-.05	--	--	--	--	-.01	.00	-.04
	X_{10}	.16	--	--	--	--	--	.00	.16
	X_{11}	.08	--	--	--	--	--	--	.08

TABLE I.12

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_6	X_7	X_8	X_9	X_{10}	X_{11}	Direct Effect
X_{15}	X_1	-.02	.00	.05	-.01	-.01	.01	-.02	-.04
	X_2	-.18	-.03	.07	-.01	.00	.01	.00	-.22
	X_3	.08	.01	-.05	-.01	.01	.00	-.01	.13
	X_4	-.06	.01	-.02	.00	.00	.00	.01	-.06
	X_5	-.14	.01	.04	.01	.00	.00	-.02	-.18
	X_6	.11	--	.00	.00	.00	.00	.00	.11
	X_7	.35	--	--	.00	-.01	.00	.00	.36
	X_8	-.07	--	--	--	-.02	-.03	.02	-.04
	X_9	-.04	--	--	--	--	.00	.00	-.04
	X_{10}	.08	--	--	--	--	--	.00	.08
	X_{11}	-.08	--	--	--	--	--	--	-.08
X_{16}	X_1	-.16	-.01	-.06	-.02	.00	.01	.01	-.07
	X_2	-.10	-.04	-.09	.00	.01	.00	.00	.02
	X_3	.30	.00	.08	-.01	-.01	.00	.00	.24
	X_4	.05	.01	.03	.00	.00	.00	.00	.01
	X_5	.07	.02	-.05	.02	.00	.00	.01	.07
	X_6	.12	--	.01	.00	.01	-.01	.00	.11
	X_7	-.52	--	--	.00	.00	.00	.00	-.52
	X_8	-.08	--	--	--	.03	-.01	.00	-.10
	X_9	.07	--	--	--	--	.00	.00	.07
	X_{10}	.04	--	--	--	--	--	.01	.03
	X_{11}	.02	--	--	--	--	--	--	.02

TABLE D.13

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via						Direct Effect
			X_6	X_7	X_8	X_9	X_{10}	X_{11}	
X_{17}	X_1	.01	.00	.01	.05	.01	-.04	.02	-.04
	X_2	.05	.00	.01	.00	.02	-.05	-.01	.08
	X_3	-.17	.00	-.01	.02	-.02	-.03	.01	-.14
	X_4	.10	.00	.00	.00	.01	-.03	.00	.12
	X_5	.04	.00	.01	-.05	.01	-.01	.02	.06
	X_6	.02	--	.00	-.01	.00	.01	.00	.02
	X_7	.06	--	--	.01	.00	.02	.01	.02
	X_8	.19	--	--	--	.07	.21	-.01	-.08
	X_9	.15	--	--	--	--	.02	.00	.13
	X_{10}	-.54	--	--	--	--	--	.01	-.55
	X_{11}	.06	--	--	--	--	--	--	.06

TABLE D.14

PAROLE SUPERVISION: DECOMPOSITION OF EFFECTS

Dependent Variable	Predetermined Variable	Total Effect	Indirect Effects Via X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12} to X_{17}	Direct Effect
X_{18}	X_1	.15	.01	-.01	.07	.01	-.01	-.02	.03	.07
	X_2	-.03	.02	.00	.01	.01	-.01	.00	.08	-.14
	X_3	-.26	.00	.00	.03	-.02	.00	-.01	-.09	-.17
	X_4	.09	-.01	.00	.00	.01	.00	.00	.00	.09
	X_5	.12	-.01	.00	-.07	.01	.00	-.02	.05	.16
	X_6	-.10	--	.00	-.03	.01	.00	.00	-.06	-.02
	X_7	-.03	--	--	.00	.01	.00	.00	-.04	.00
	X_8	.29	--	--	--	.06	.05	.01	.04	.13
	X_9	.12	--	--	--	--	.00	.00	-.01	.13
	X_{10}	-.13	--	--	--	--	--	-.01	.03	-.15
	X_{11}	-.06	--	--	--	--	--	--	.02	-.08
	X_{12}	.01	--	--	--	--	--	--	--	.01
	X_{13}	.06	--	--	--	--	--	--	--	.06
	X_{14}	.20	--	--	--	--	--	--	--	.20
	X_{15}	-.15	--	--	--	--	--	--	--	-.15
	X_{16}	-.06	--	--	--	--	--	--	--	-.06
	X_{17}	-.01	--	--	--	--	--	--	--	-.01
X_{19}	X_{18}	-.52	--	--	--	--	--	--	--	-.52